

Fig.1

Fig.2

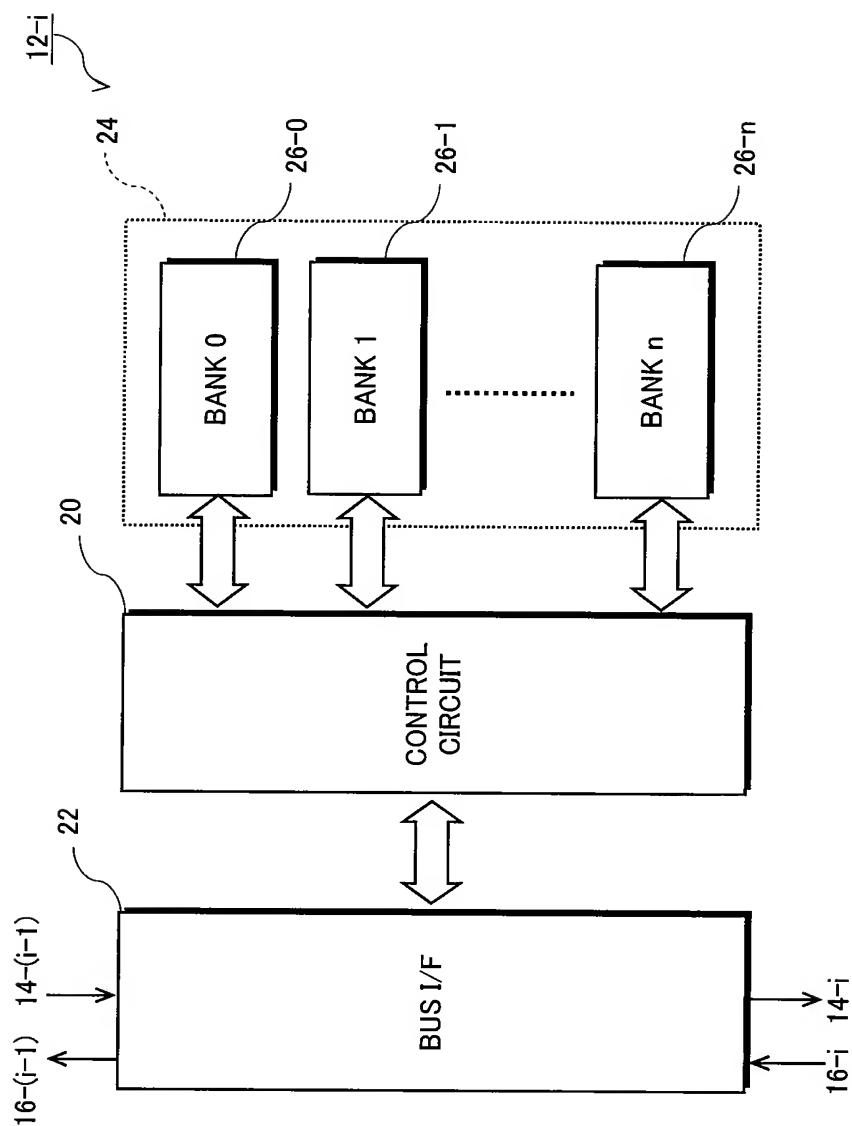


Fig.3

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	18	168	55
1	MALE	21	172	64
2	FEMALE	24	159	48
3	FEMALE	16	172	48
4	MALE	28	181	78
5	FEMALE	20	166	55
6	FEMALE	16	168	52
7	MALE	33	174	65
8	MALE	24	177	64
9	FEMALE	18	170	55

SEX		AGE		HEIGHT		WEIGHT	
VNo	VL	VNo	VL	VNo	VL	VNo	VL
0 1	0 MALE	0 16	0 159	0 2	0 48	0 2	0 48
1 0	1 FEMALE	1 18	1 166	1 3	1 52	1 3	1 52
2 1	ASCENDING ORDER	2 20	2 168	2 0	2 55	2 0	2 55
3 3		3 21	3 170	3 4	3 64	3 0	3 64
4 4		4 24	4 172	4 7	4 65	4 5	4 65
5 5		5 28	5 174	5 1	5 78	5 2	5 78
6 6	ASCENDING ORDER	6 33	6 177	6 2	ASCENDING ORDER	6 1	ASCENDING ORDER
7 7		7 6	7 181	7 5	7 4	7 4	7 4
8 8		8 4	8 6	8 6	8 3	8 3	8 3
9 9		9 1	9 3	9 2	9 2	9 2	9 2

OrdSet
0 0
1 1
2 2
3 3
4 4
5 5
6 6
7 7
8 8
9 9

Fig.4

Fig.5

OFFSET= 0

PMM-0

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	18	168	55
1	MALE	21	172	64
2	FEMALE	24	159	48

OFFSET= 3

PMM-1

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	16	172	48
1	MALE	28	181	78

OFFSET= 5

PMM-2

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	20	166	55
1	FEMALE	16	168	52
2	MALE	33	174	65

OFFSET= 8

PMM-3

	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	MALE	24	177	64
1	FEMALE	18	170	55

Fig.6

SEX (PMM-0)		AGE (PMM-0)		HEIGHT (PMM-0)		WEIGHT (PMM-0)	
GOrd	OrdSet	VNo	VL	VNo	VL	VNo	VL
0	-	0	MALE	0	0	0	48
1	-	1	FEMALE	1	1	1	55
2	-	2		2	2	2	64
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	
SEX (PMM-1)		AGE (PMM-1)		HEIGHT (PMM-1)		WEIGHT (PMM-1)	
GOrd	OrdSet	VNo	VL	VNo	VL	VNo	VL
0	-	0	MALE	0	0	0	48
1	-	1	FEMALE	1	1	1	78
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

Fig.7

SEX (PMM-2)		AGE (PMM-2)		HEIGHT (PMM-2)		WEIGHT (PMM-2)	
GOrd	OrdSet	VNo	VL	VNo	VL	VNo	VL
0	-	0	MALE	0	-	0	-
1	-	1	FEMALE	1	-	1	-
2	-	2		2	-	2	-
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	
SEX (PMM-3)		AGE (PMM-3)		HEIGHT (PMM-3)		WEIGHT (PMM-3)	
GOrd	OrdSet	VNo	VL	VNo	VL	VNo	VL
0	-	0	MALE	0	-	0	-
1	-	1	FEMALE	1	-	1	-
2	-	2		2	-	2	-
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

Fig.8

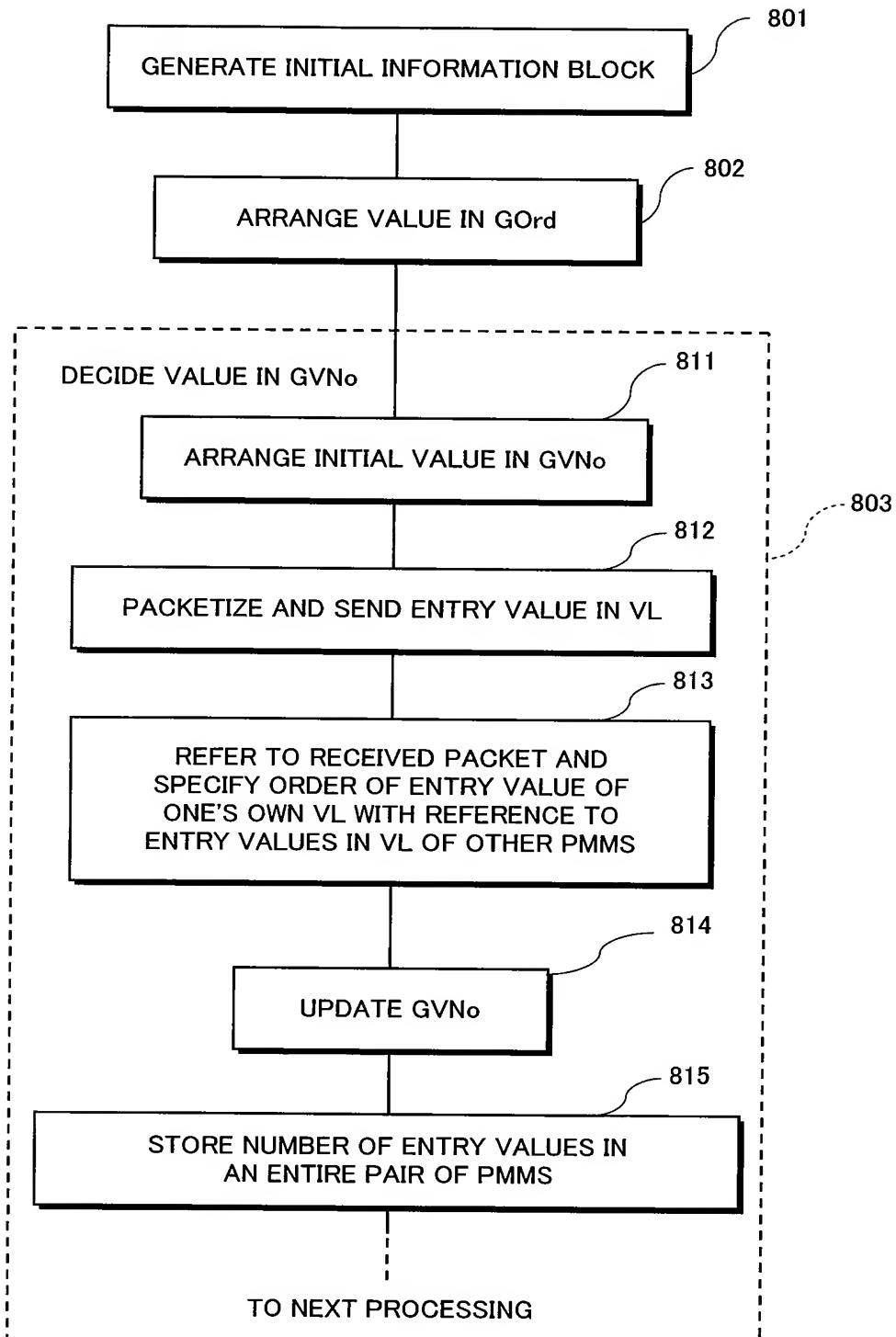


Fig.9

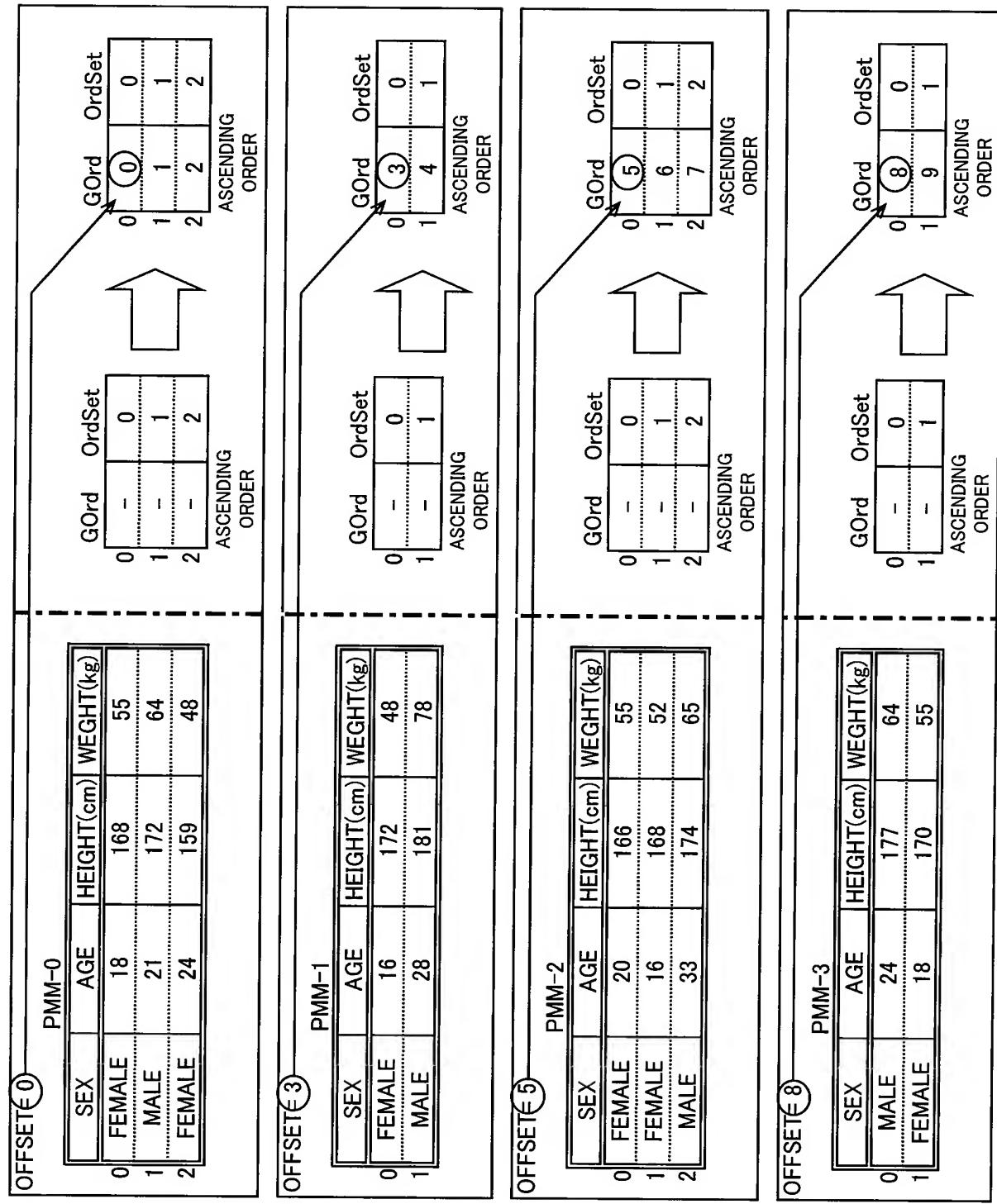


Fig.10

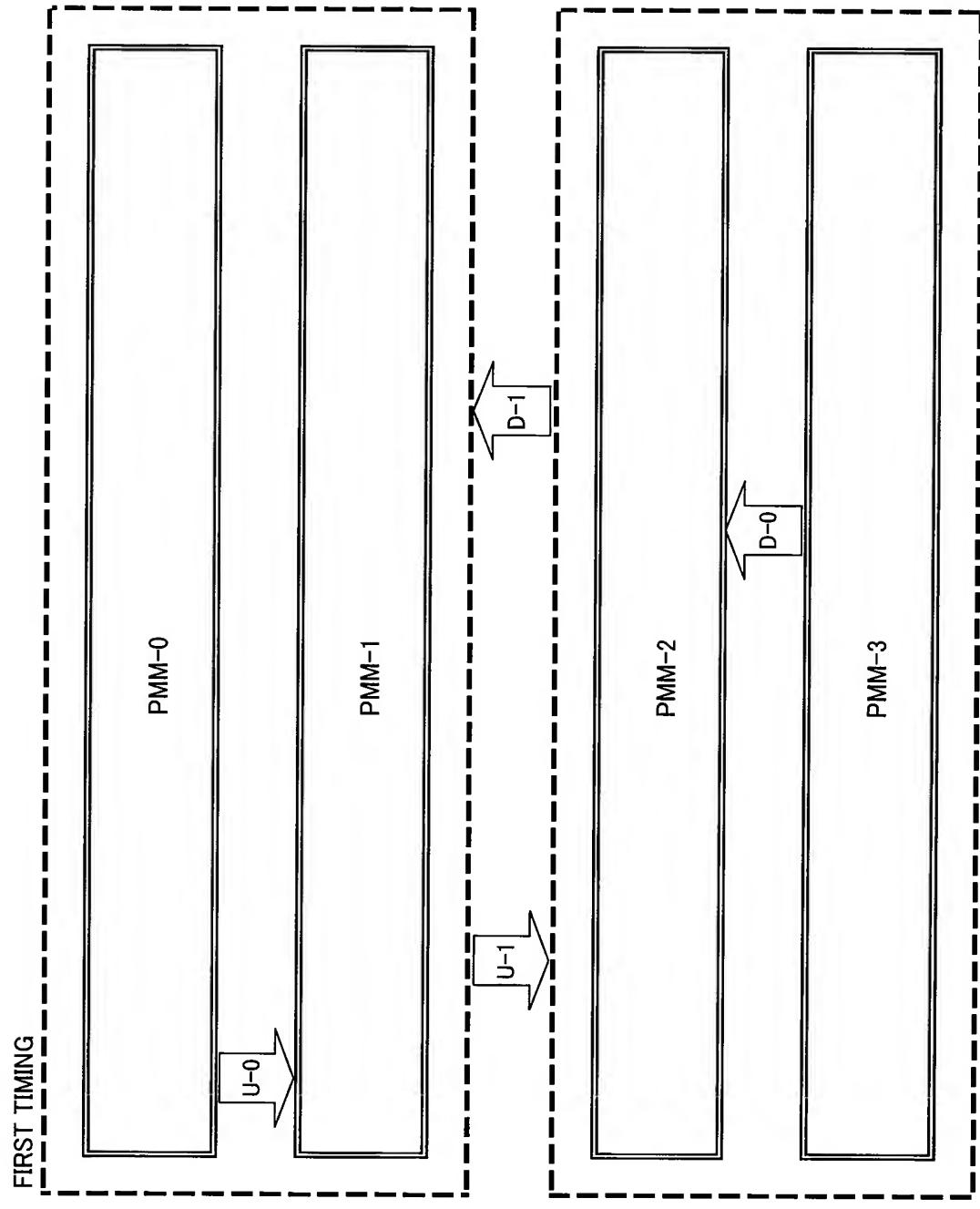


Fig.11

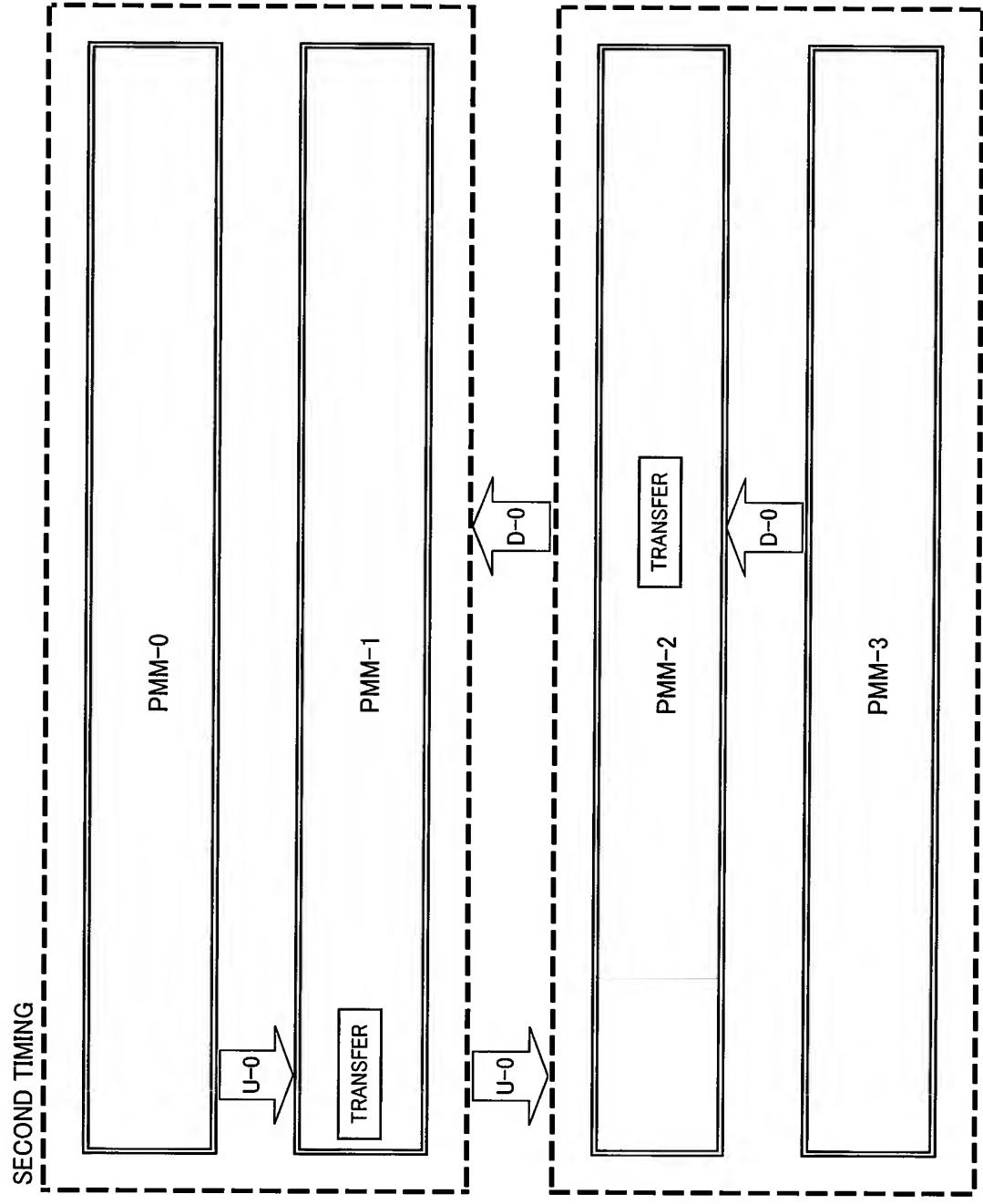


Fig.12

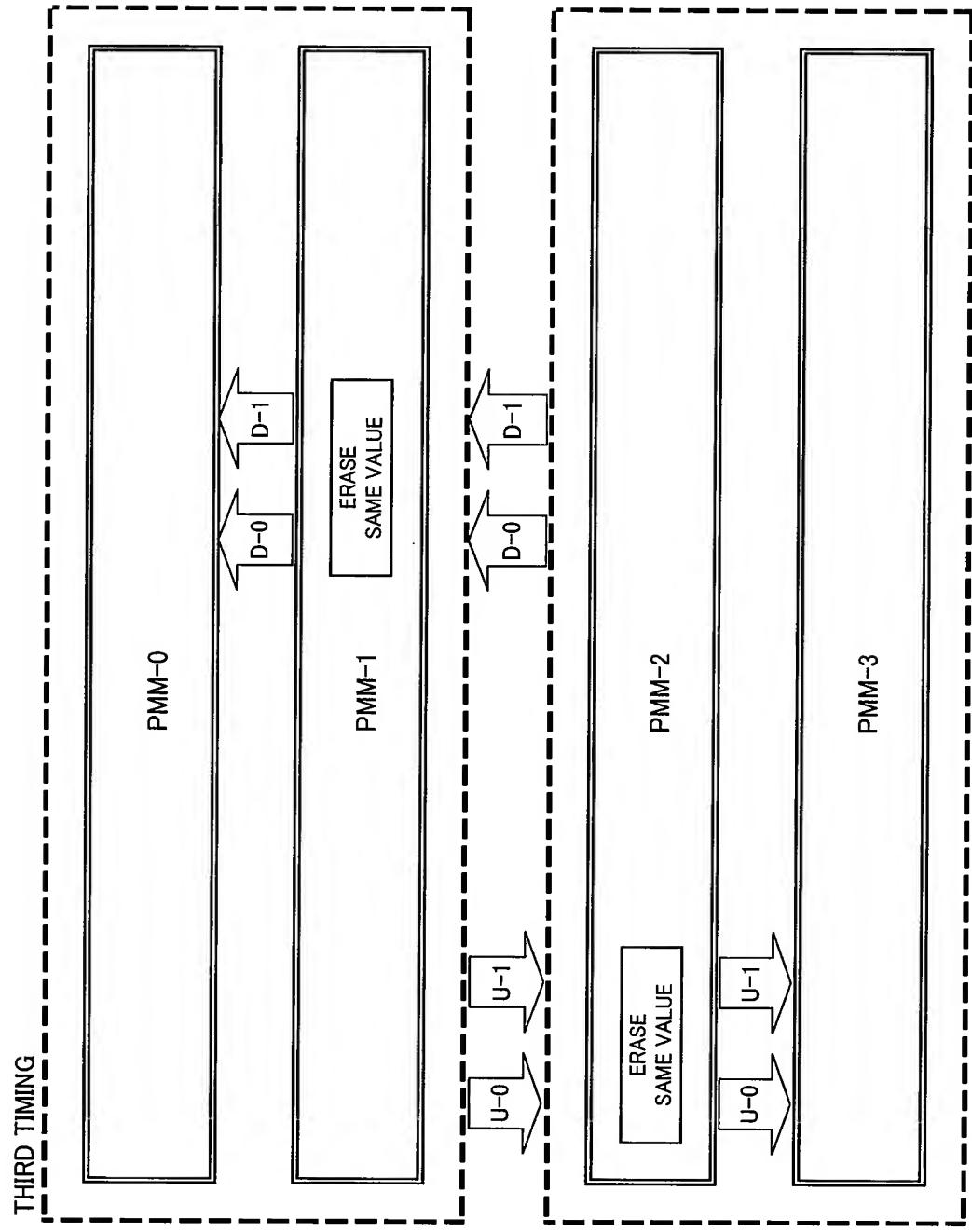


Fig.13
FOURTH TIMING

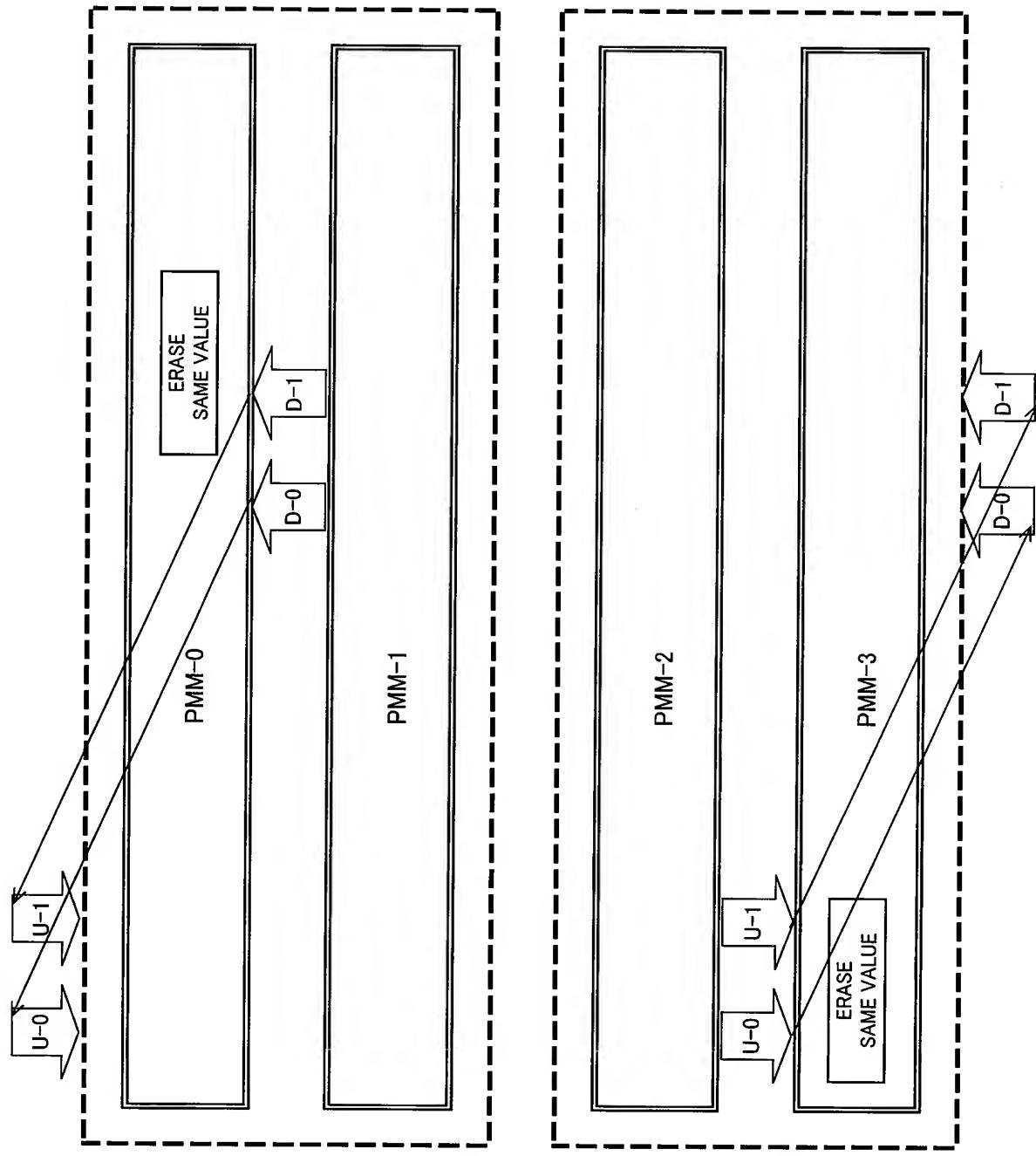


Fig.14A

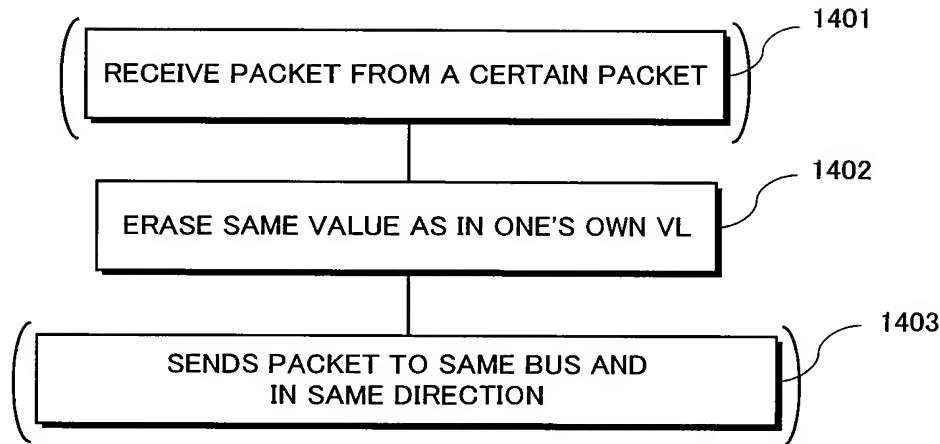


Fig.14B

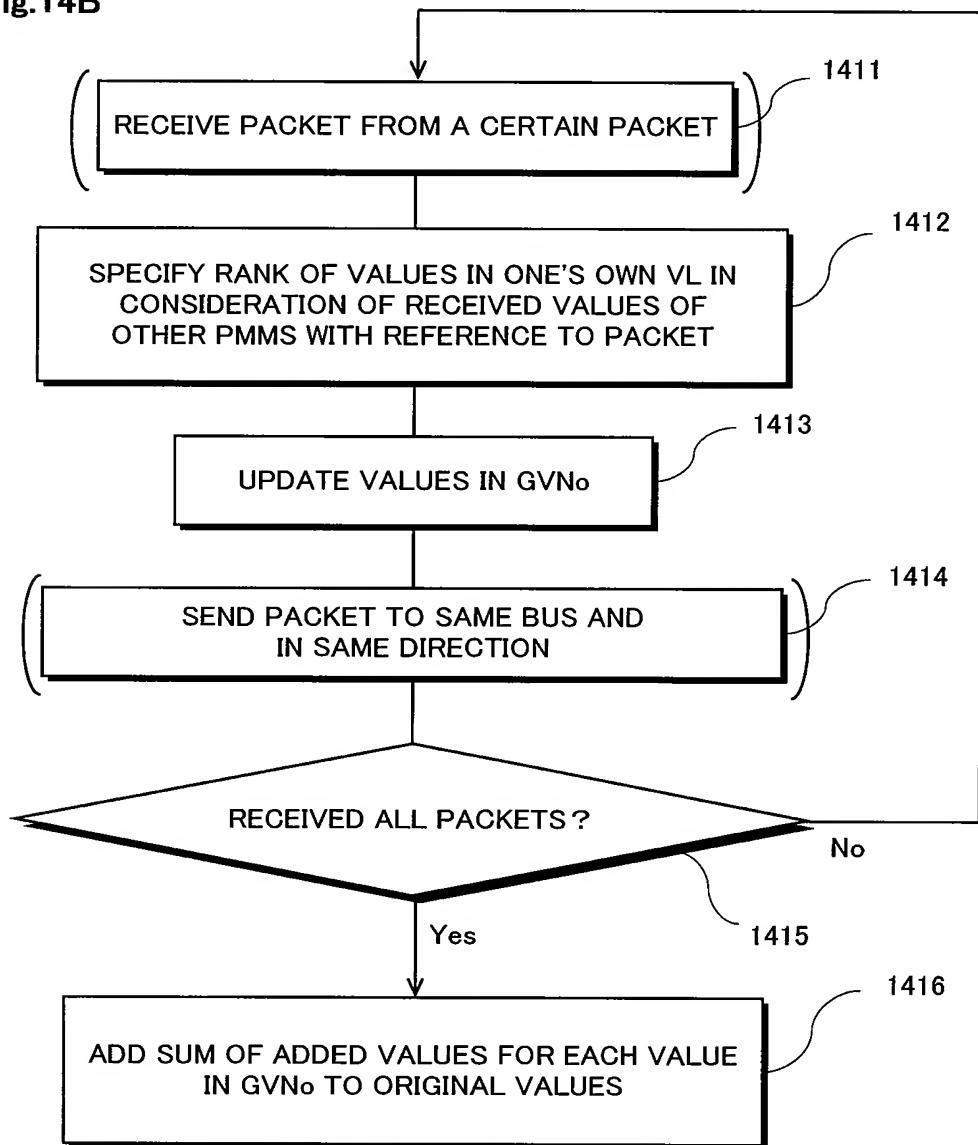


Fig.15

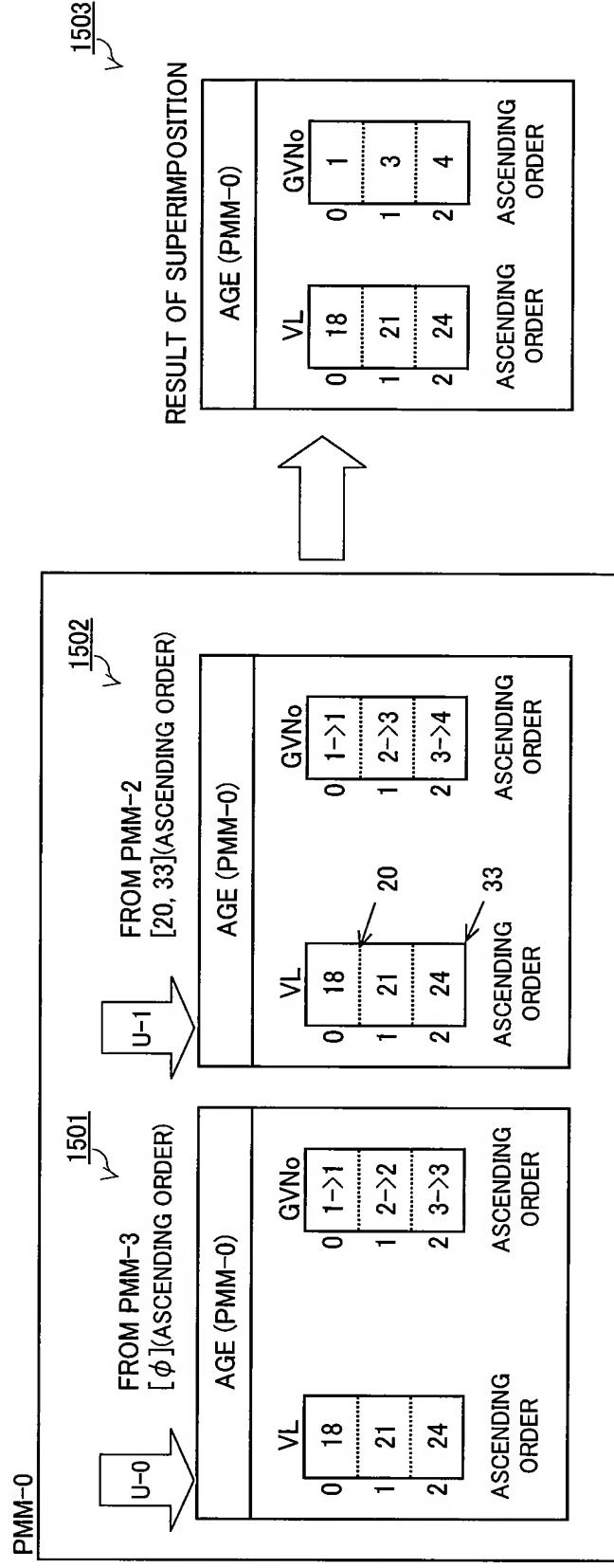


Fig.16

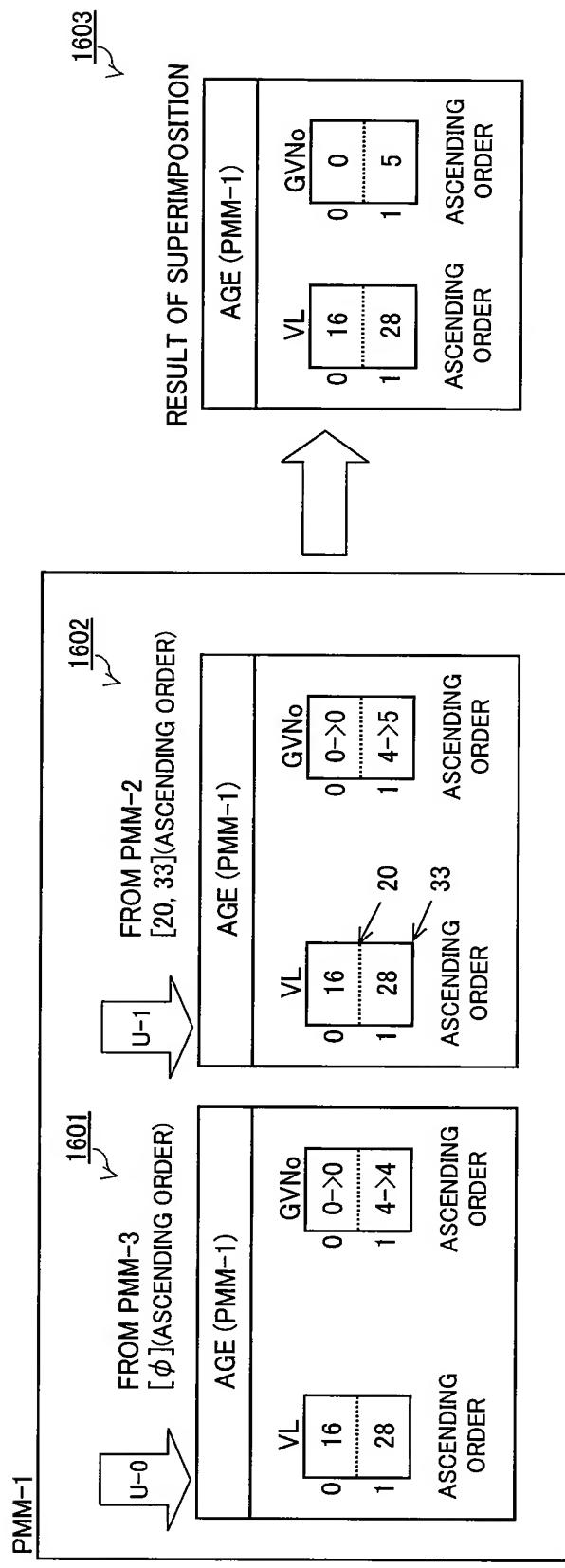
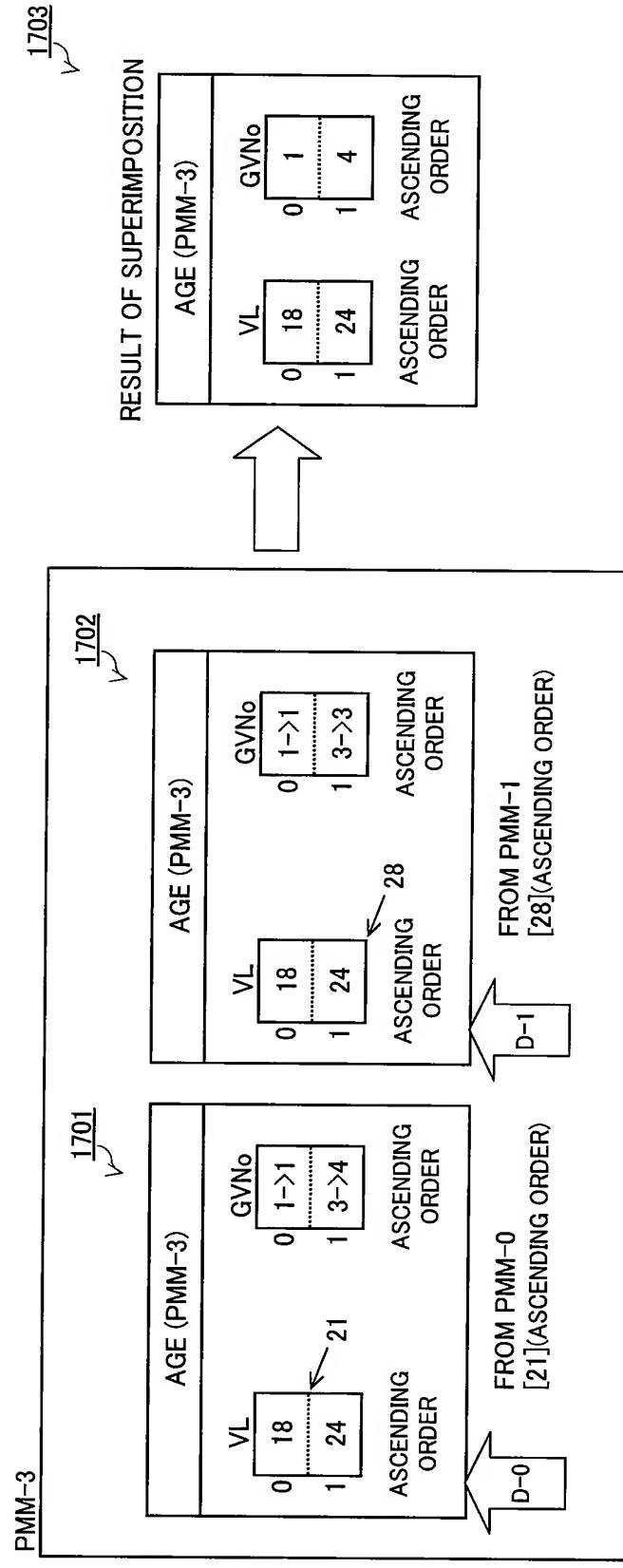


Fig.17



1703

1702

1701

PMM-3

Fig.18

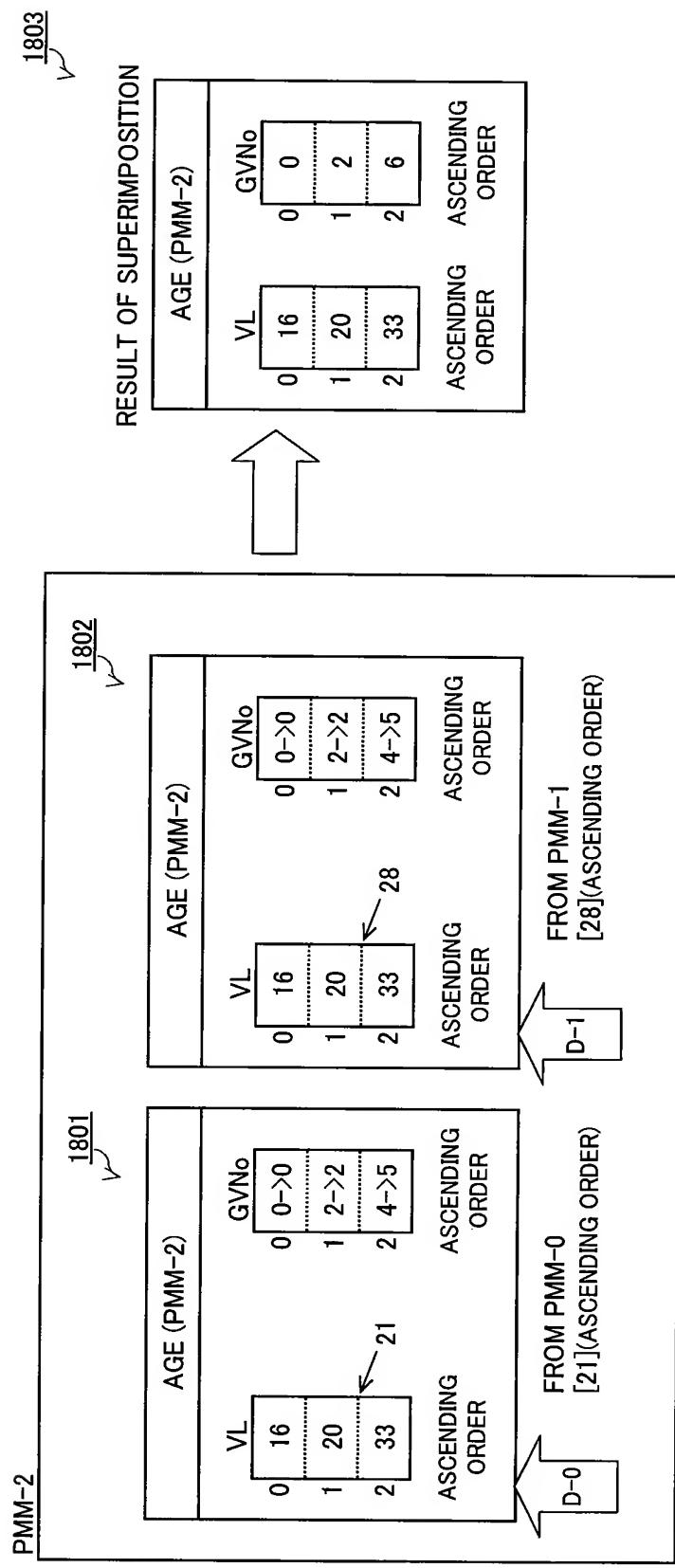


Fig.19

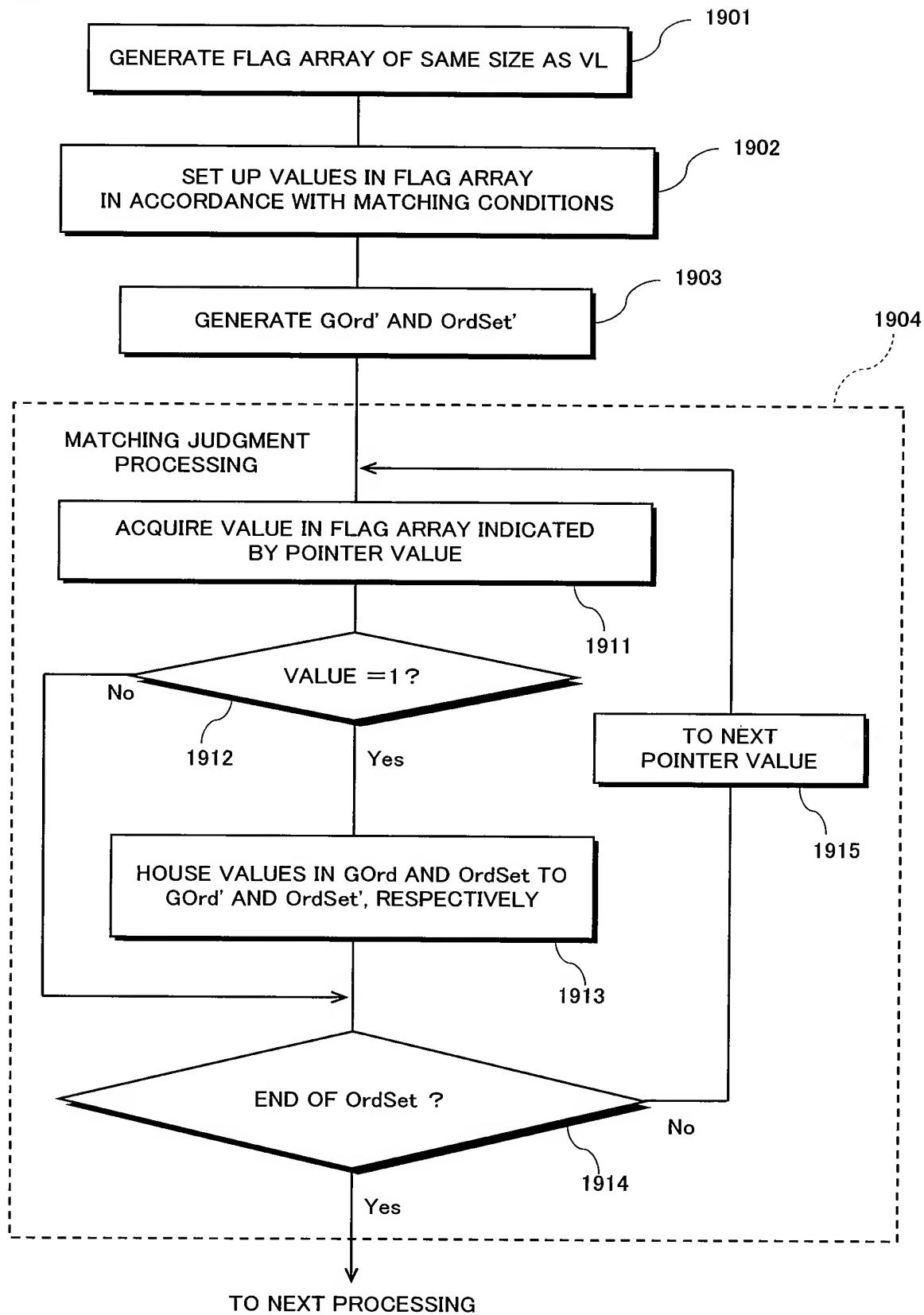


Fig.20

AGE (PMM-0)		AGE (PMM-1)		AGE (PMM-2)		AGE (PMM-3)	
GOrd	OrdSet	VNo	VL	FLAG ARRAY	GVNo	GOrd'	OrdSet'
0	0	0	0	0	0	0	-
1	1	1	1	1	1	1	-
2	2	2	2	2	2	2	-
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	
GOrd	OrdSet	VNo	VL	FLAG ARRAY	GVNo	GOrd'	OrdSet'
0	3	0	0	0	0	0	-
1	4	1	1	1	1	1	-
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	
GOrd	OrdSet	VNo	VL	FLAG ARRAY	GVNo	GOrd'	OrdSet'
0	5	0	0	0	0	0	-
1	6	1	1	1	1	1	-
2	7	2	2	2	2	2	-
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	
GOrd	OrdSet	VNo	VL	FLAG ARRAY	GVNo	GOrd'	OrdSet'
0	8	0	0	0	0	0	-
1	9	1	1	1	1	1	-
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

Fig.21

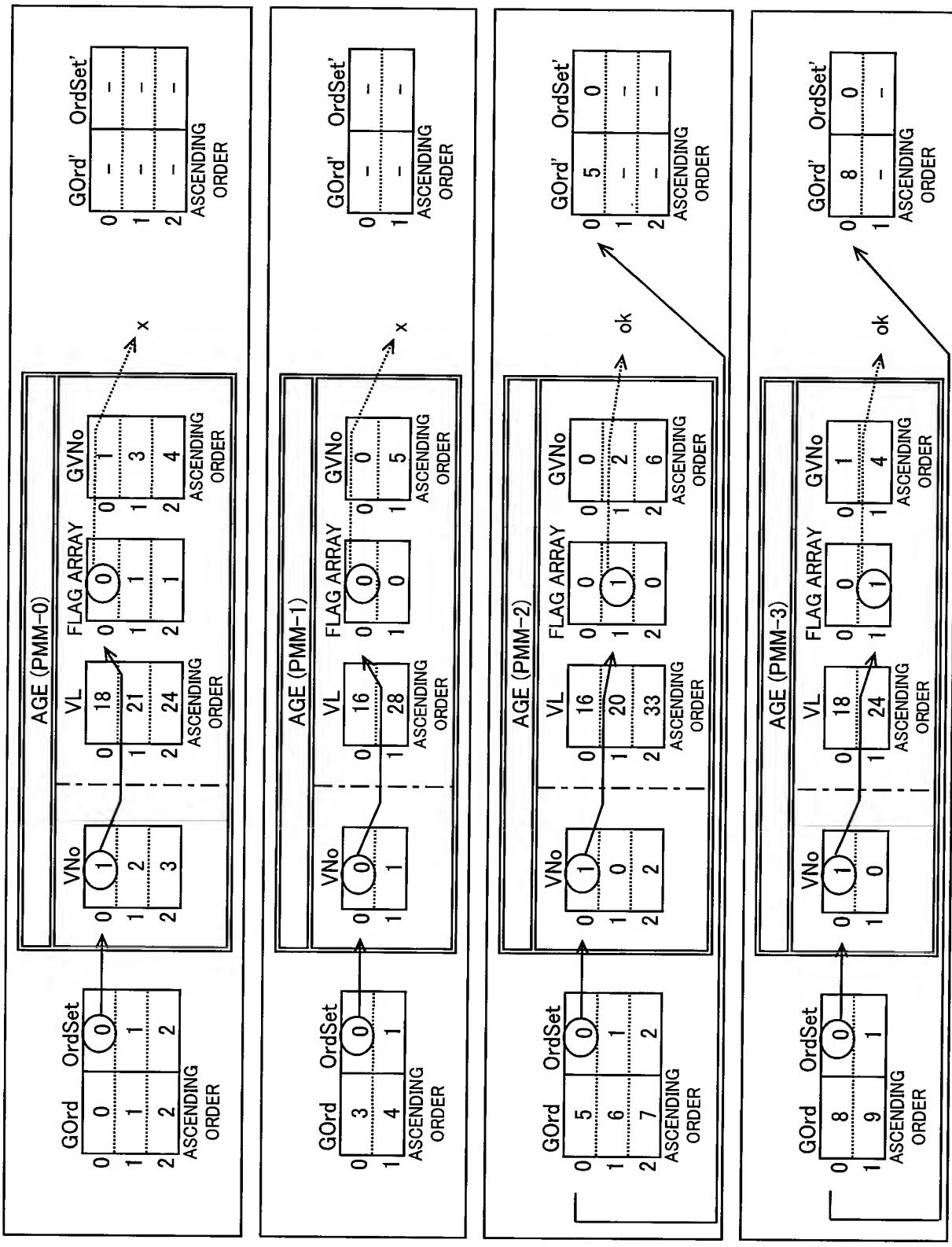


Fig.22

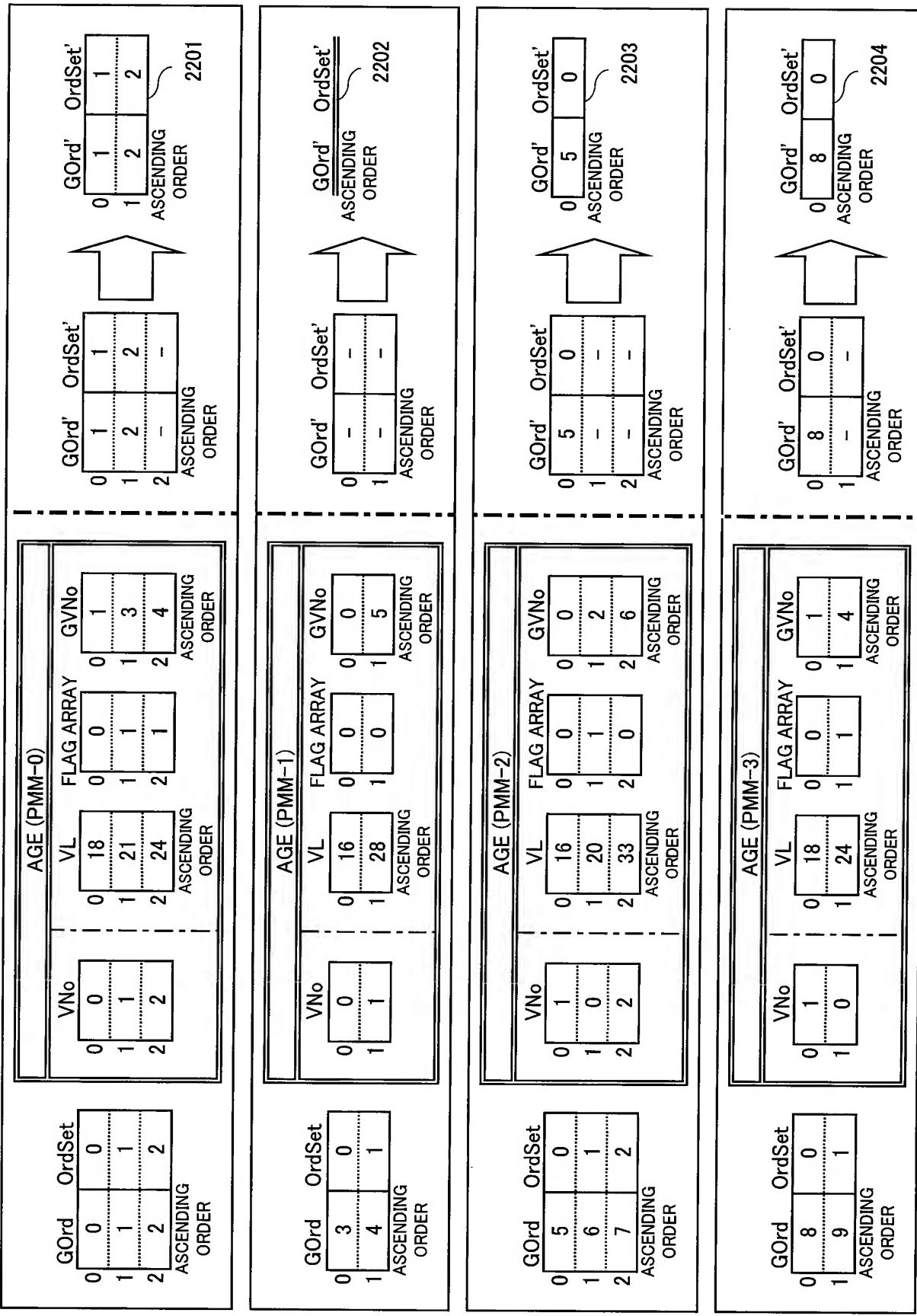


Fig.23

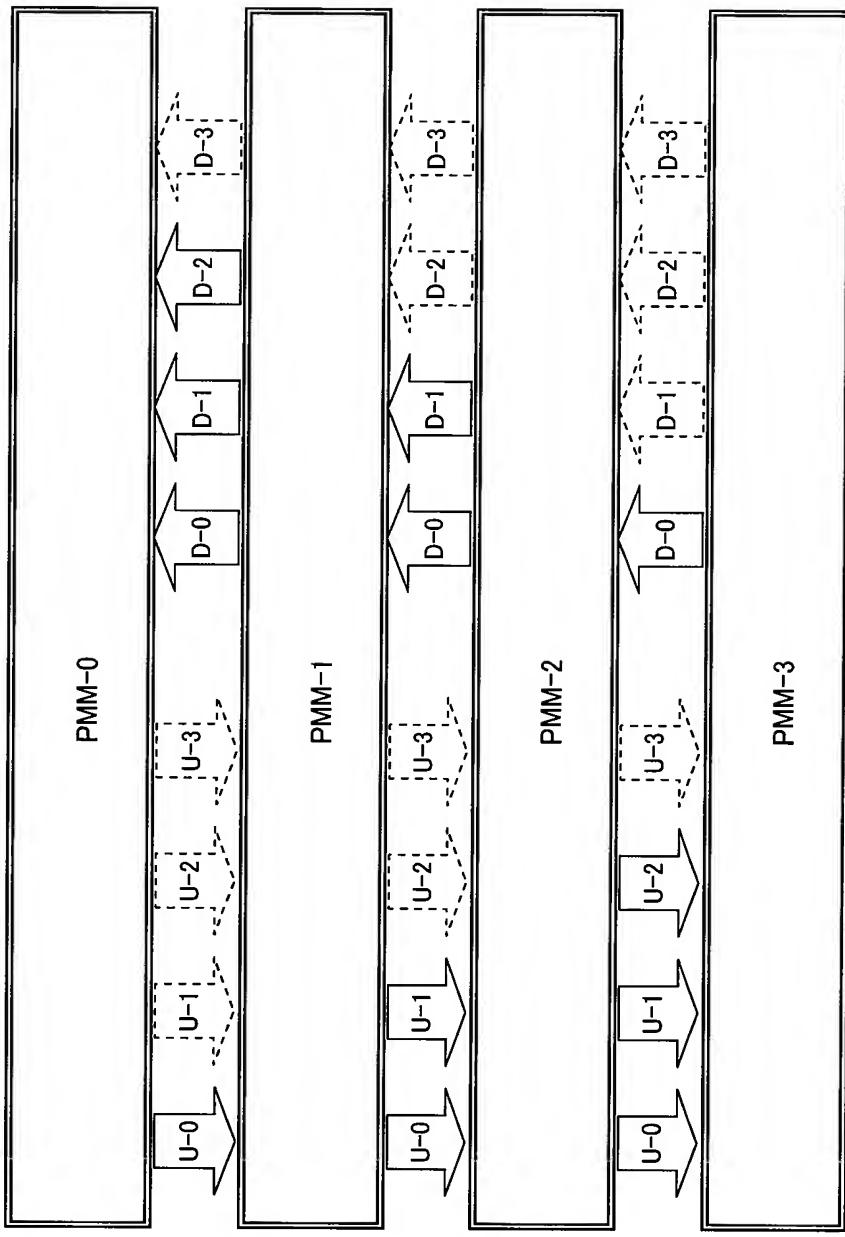


Fig.24

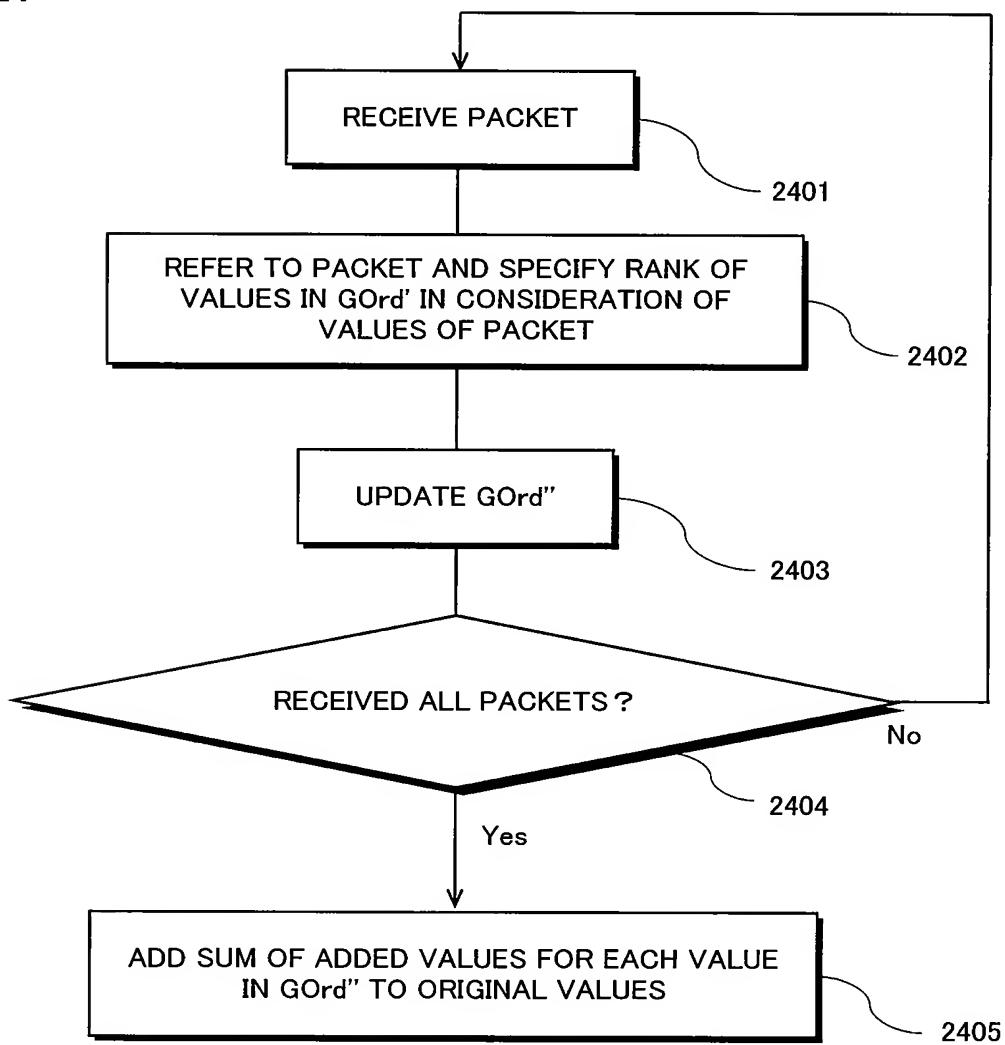


Fig.25

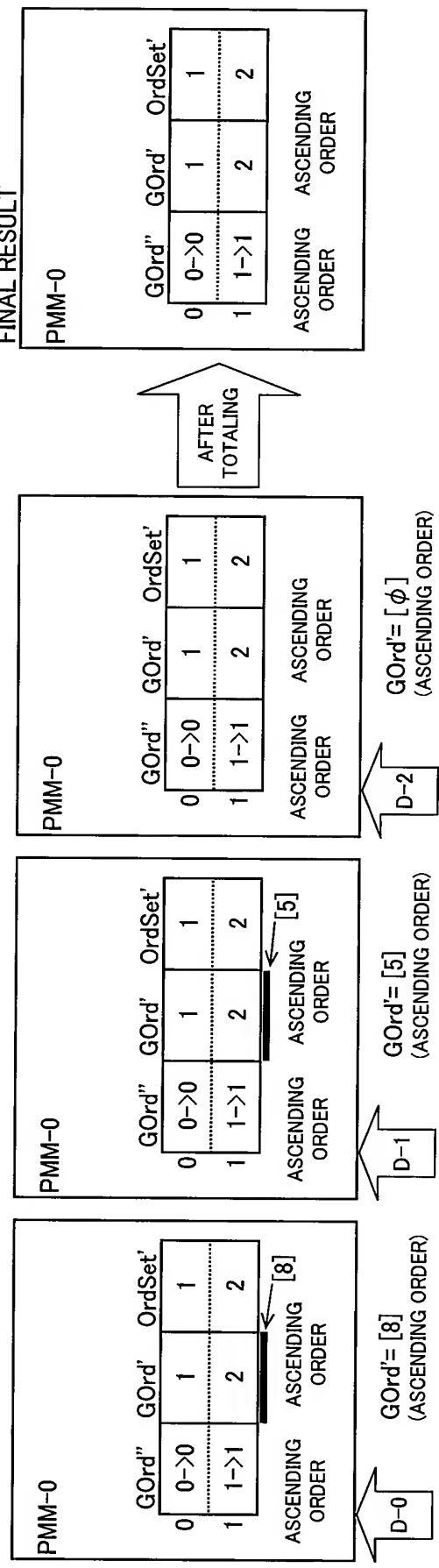


Fig.26

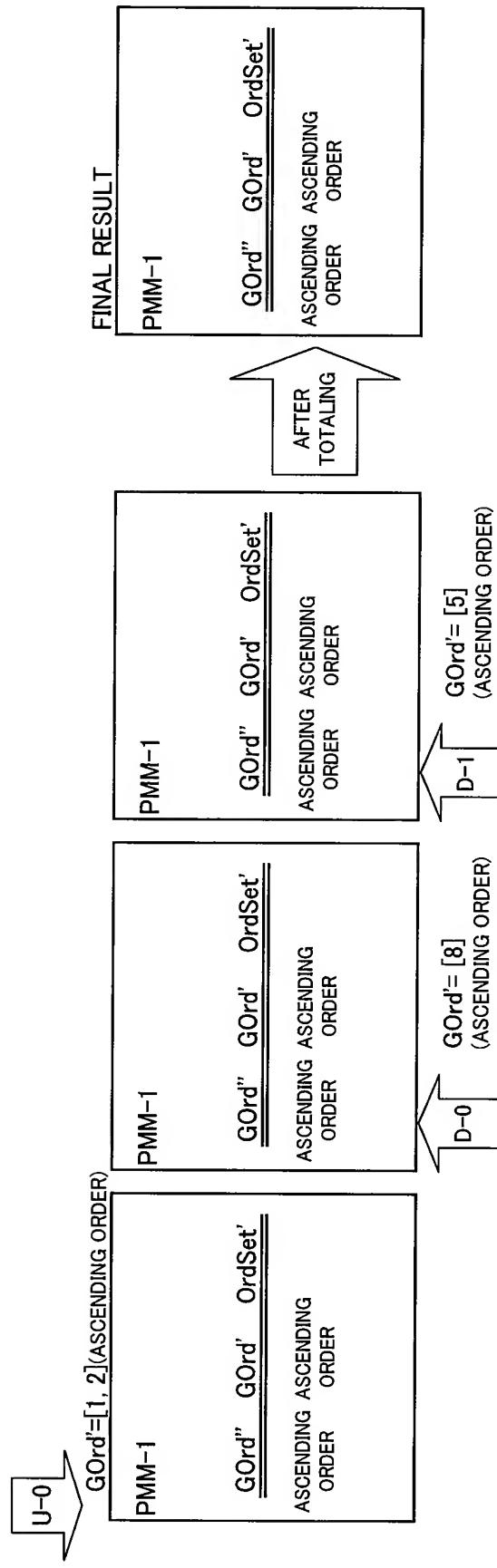


Fig.27

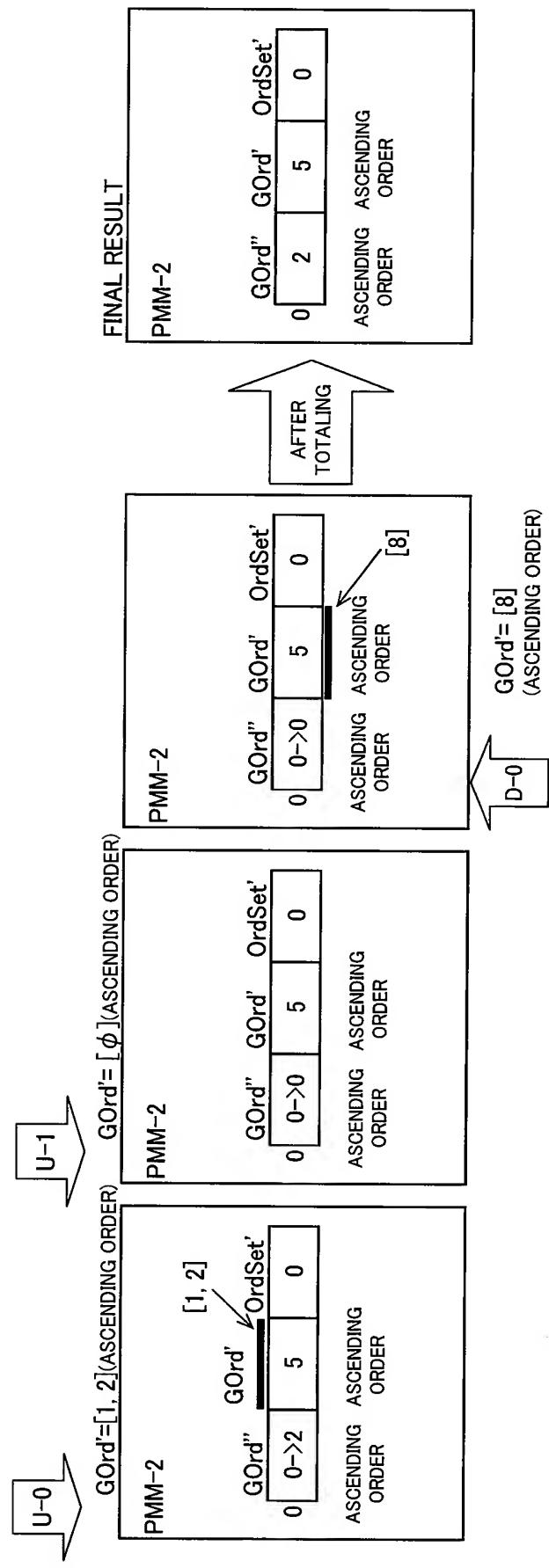


Fig.28

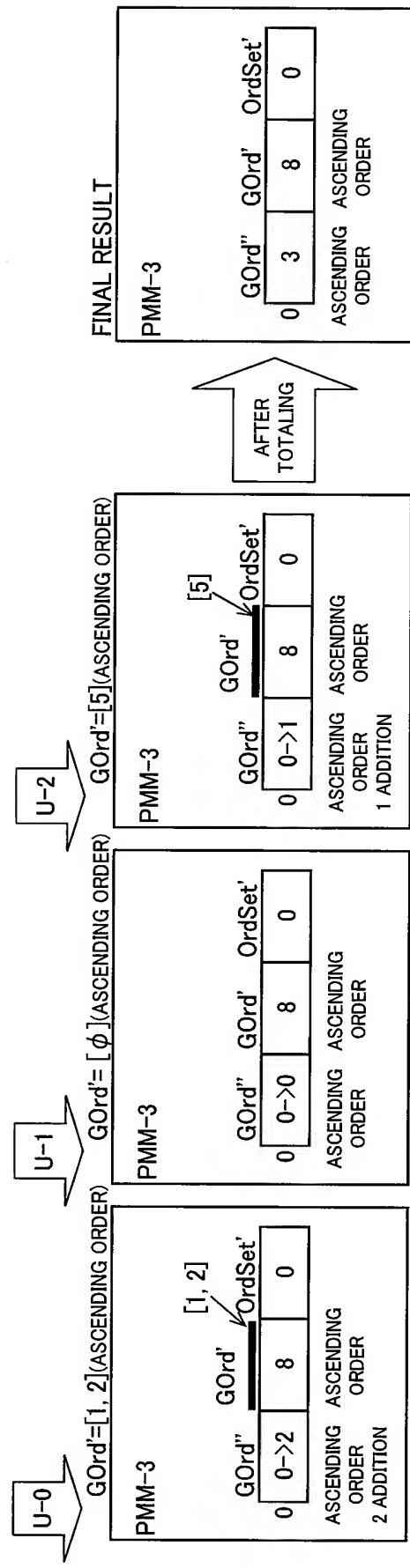


Fig.29

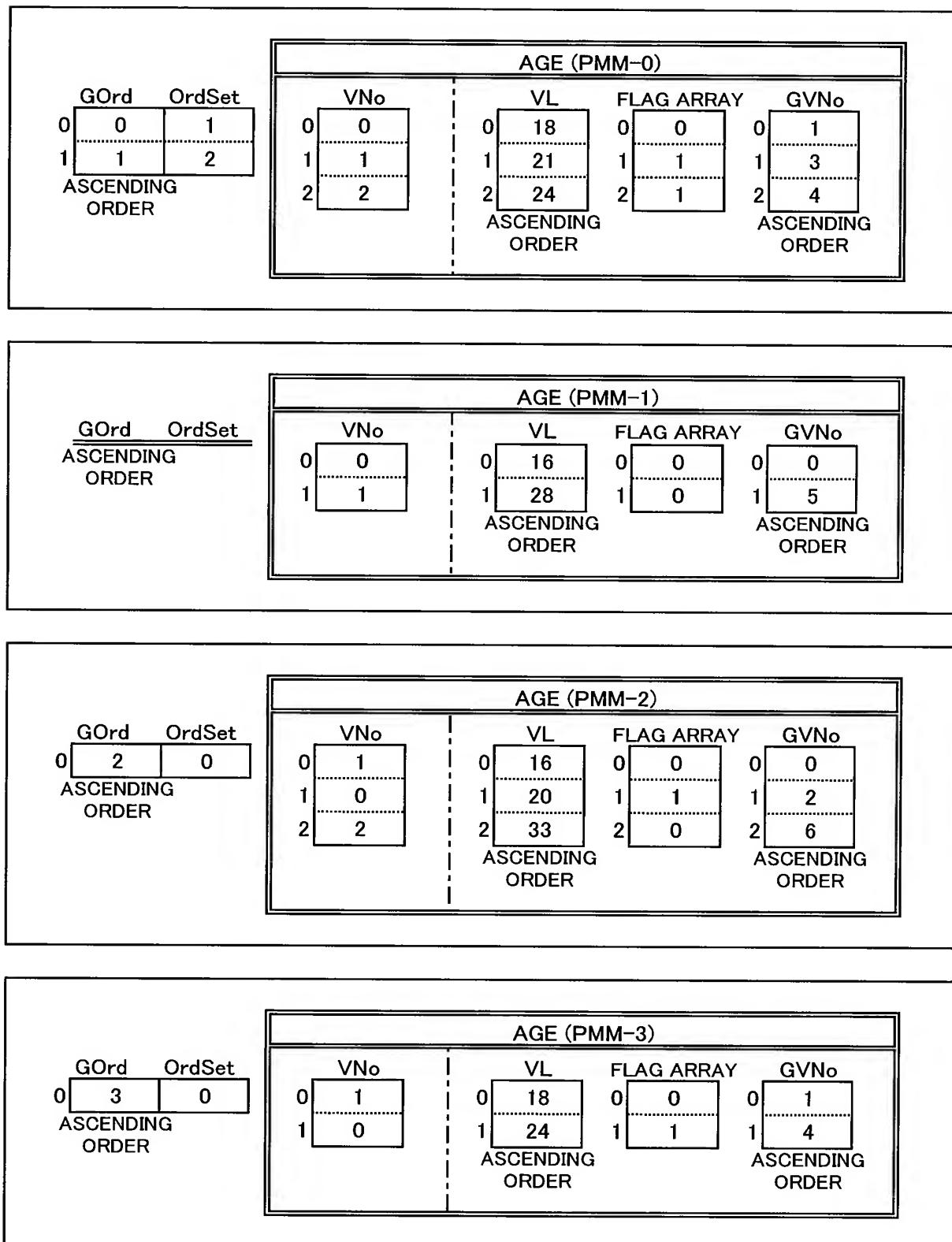


Fig.30

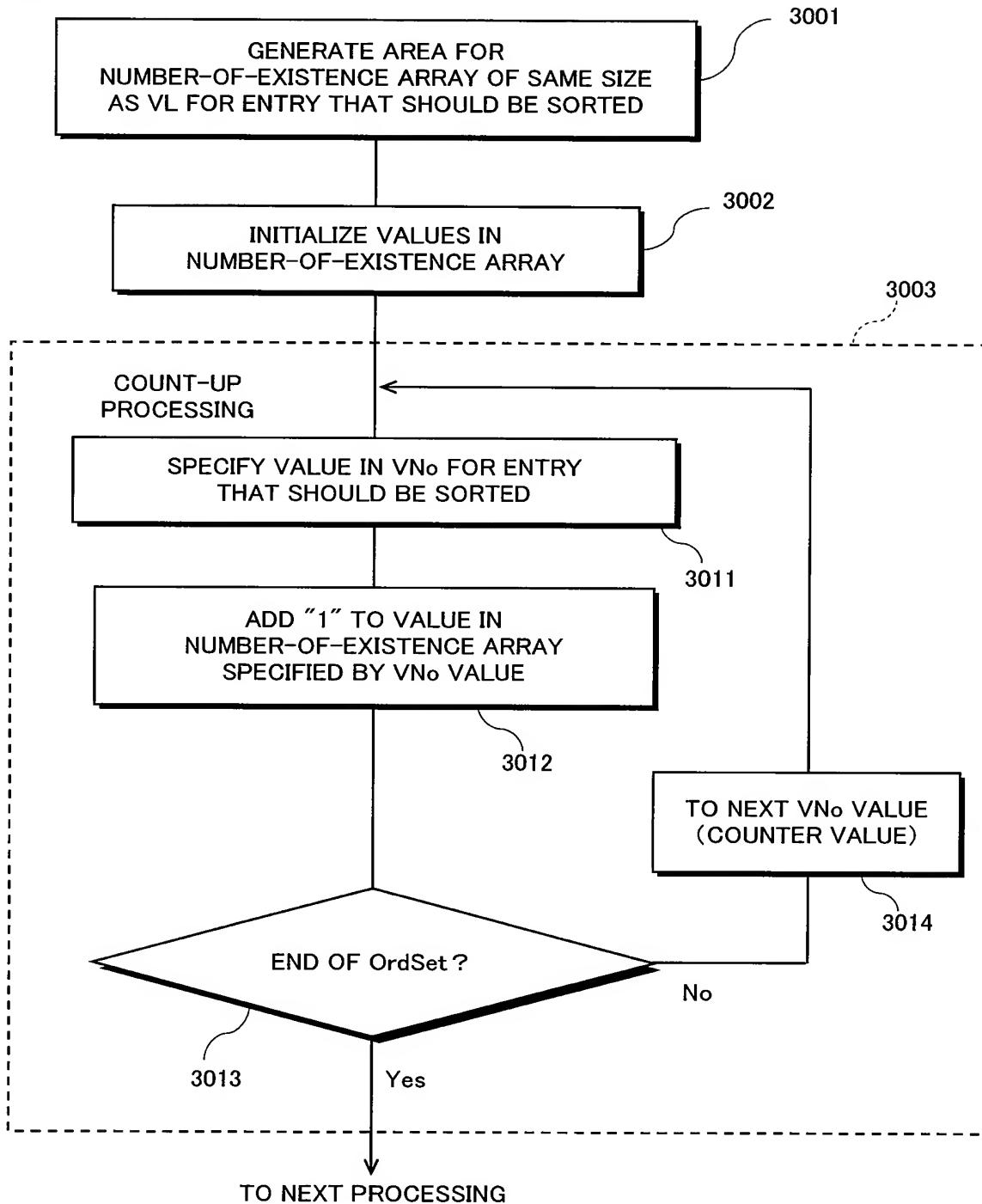


Fig.31

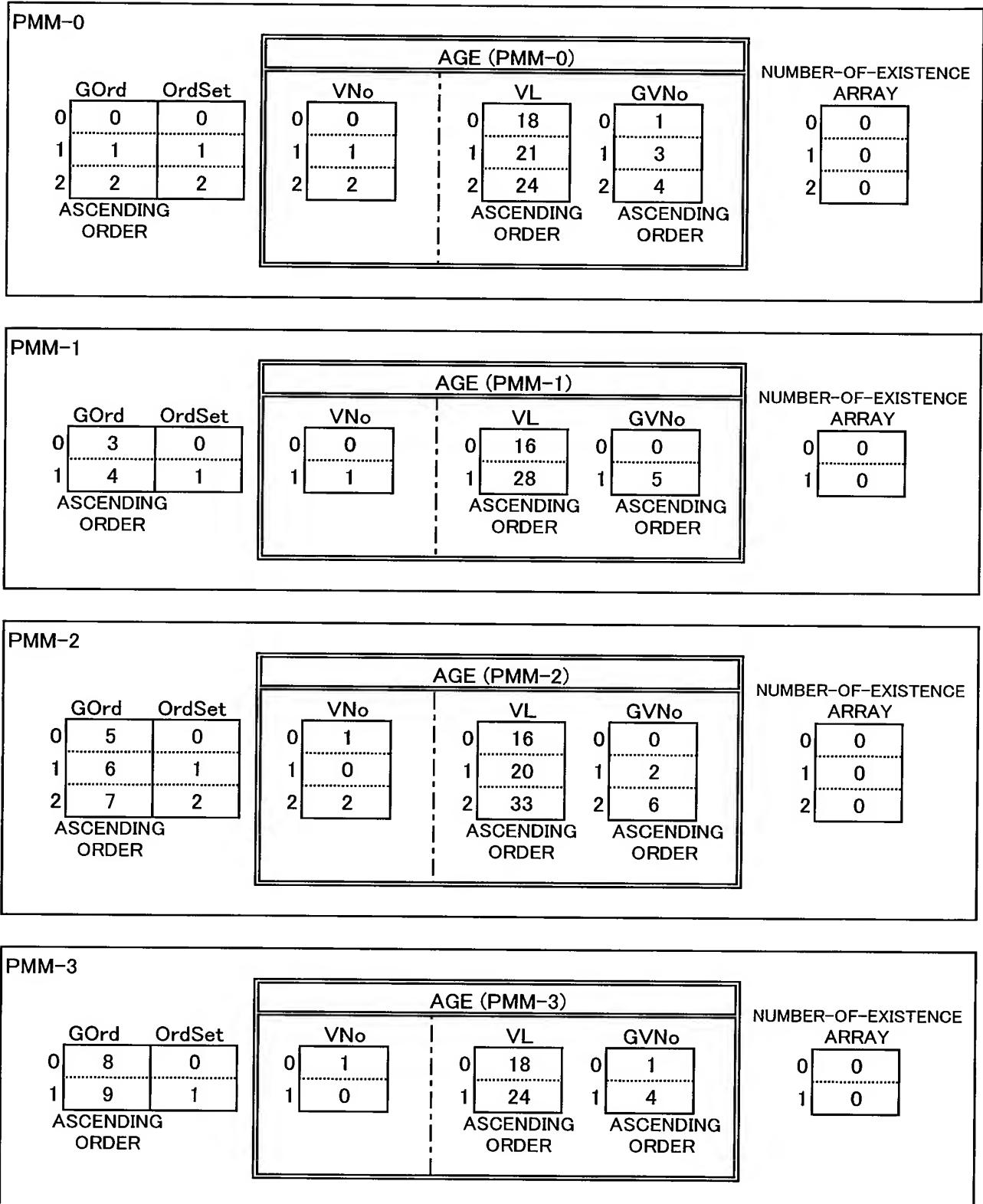


Fig.32

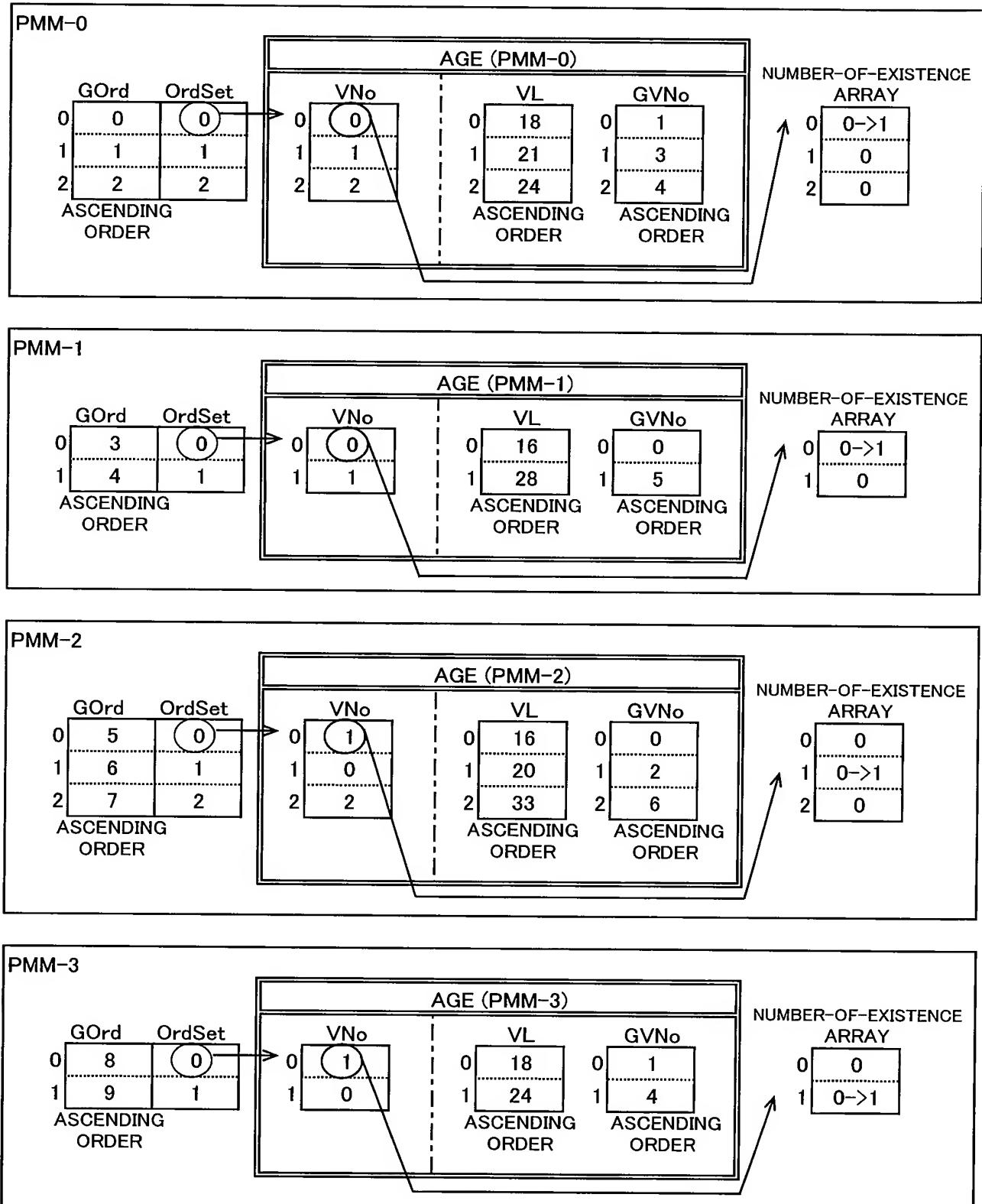


Fig.33

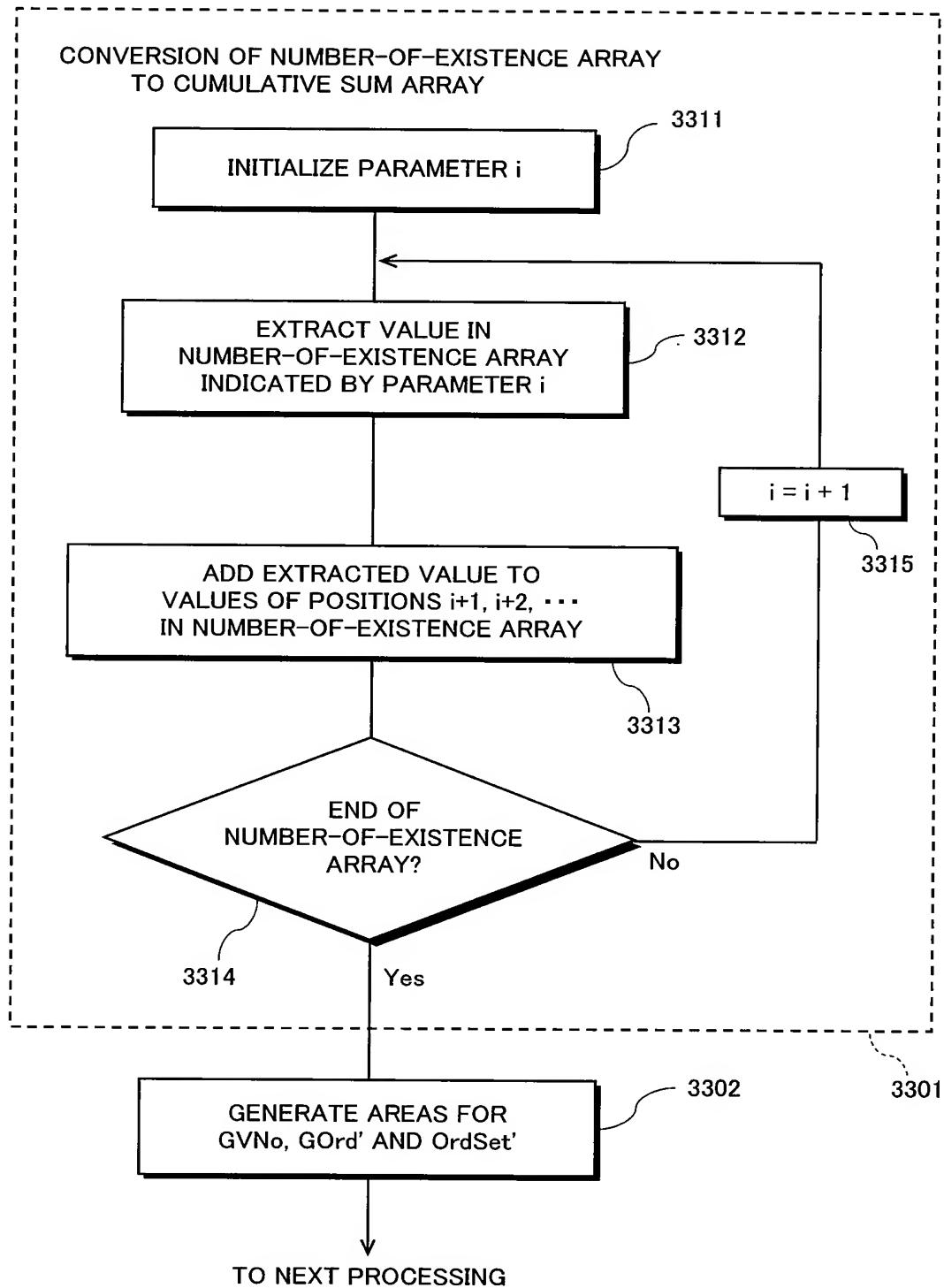


Fig.34

PMM-0		AGE (PMM-0)		NUMBER-OF-EXISTENCE ARRAY		CUMULATIVE SUM ARRAY		GVNo' GOrd' OrdSet'	
GOrd	OrdSet	VNo	VL	GVNo		0	0	0	-
0	0	0	0	0		1	1	1	-
1	1	1	1	1		2	2	2	-
2	2	2	2	2					
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

PMM-1		AGE (PMM-1)		NUMBER-OF-EXISTENCE ARRAY		CUMULATIVE SUM ARRAY		GVNo' GOrd' OrdSet'	
GOrd	OrdSet	VNo	VL	GVNo		0	0	0	-
0	3	0	0	0		1	1	1	-
1	4	1	1	1		2	2	2	-
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

PMM-2		AGE (PMM-2)		NUMBER-OF-EXISTENCE ARRAY		CUMULATIVE SUM ARRAY		GVNo' GOrd' OrdSet'	
GOrd	OrdSet	VNo	VL	GVNo		0	0	0	-
0	5	0	0	0		1	1	1	-
1	6	1	0	1		2	2	2	-
2	7	2	2	2					
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

PMM-3		AGE (PMM-3)		NUMBER-OF-EXISTENCE ARRAY		CUMULATIVE SUM ARRAY		GVNo' GOrd' OrdSet'	
GOrd	OrdSet	VNo	VL	GVNo		0	0	0	-
0	8	0	0	0		1	1	1	-
1	9	1	0	1		2	2	2	-
ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

Fig.35

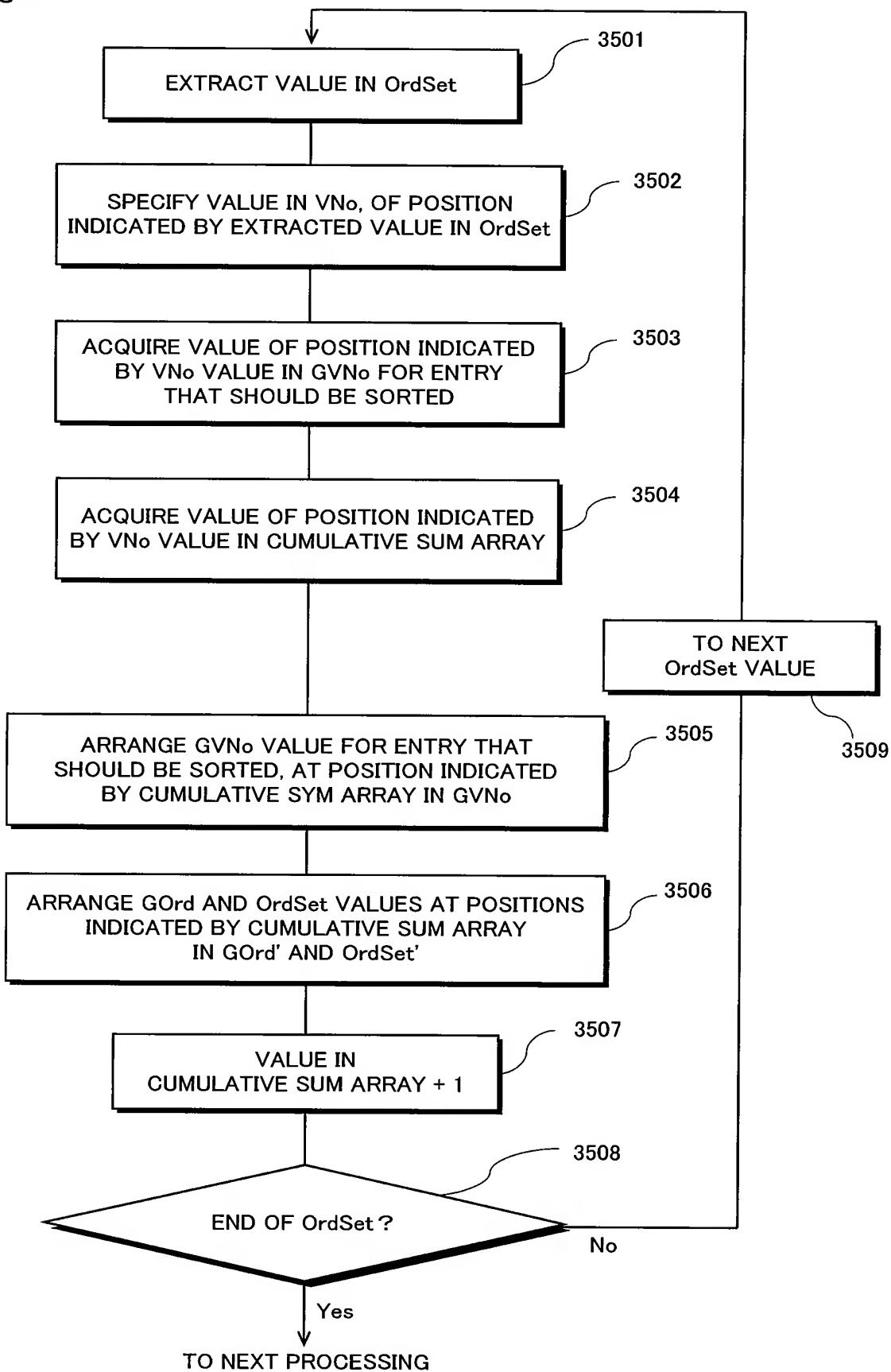


Fig.36

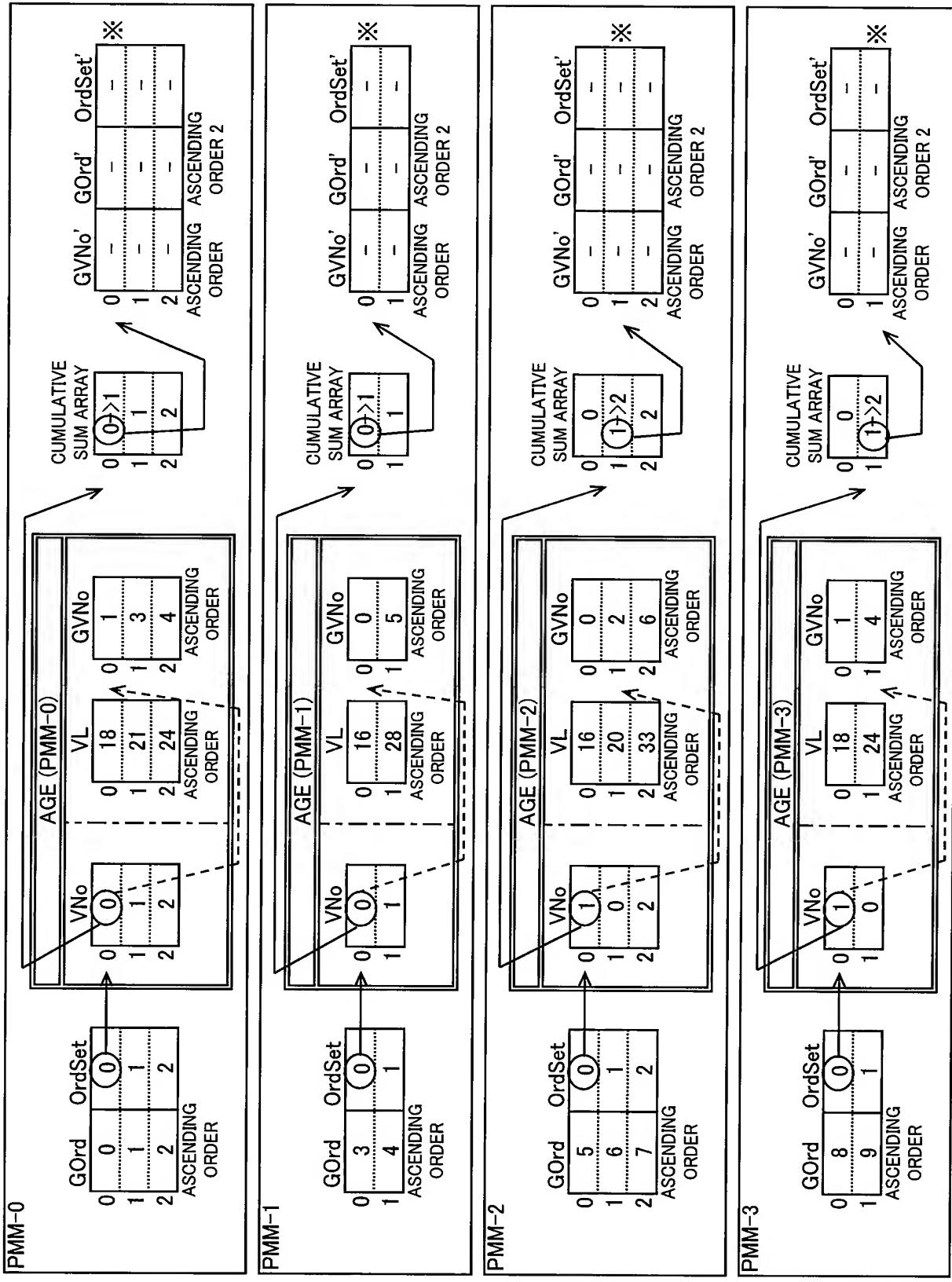


Fig.37

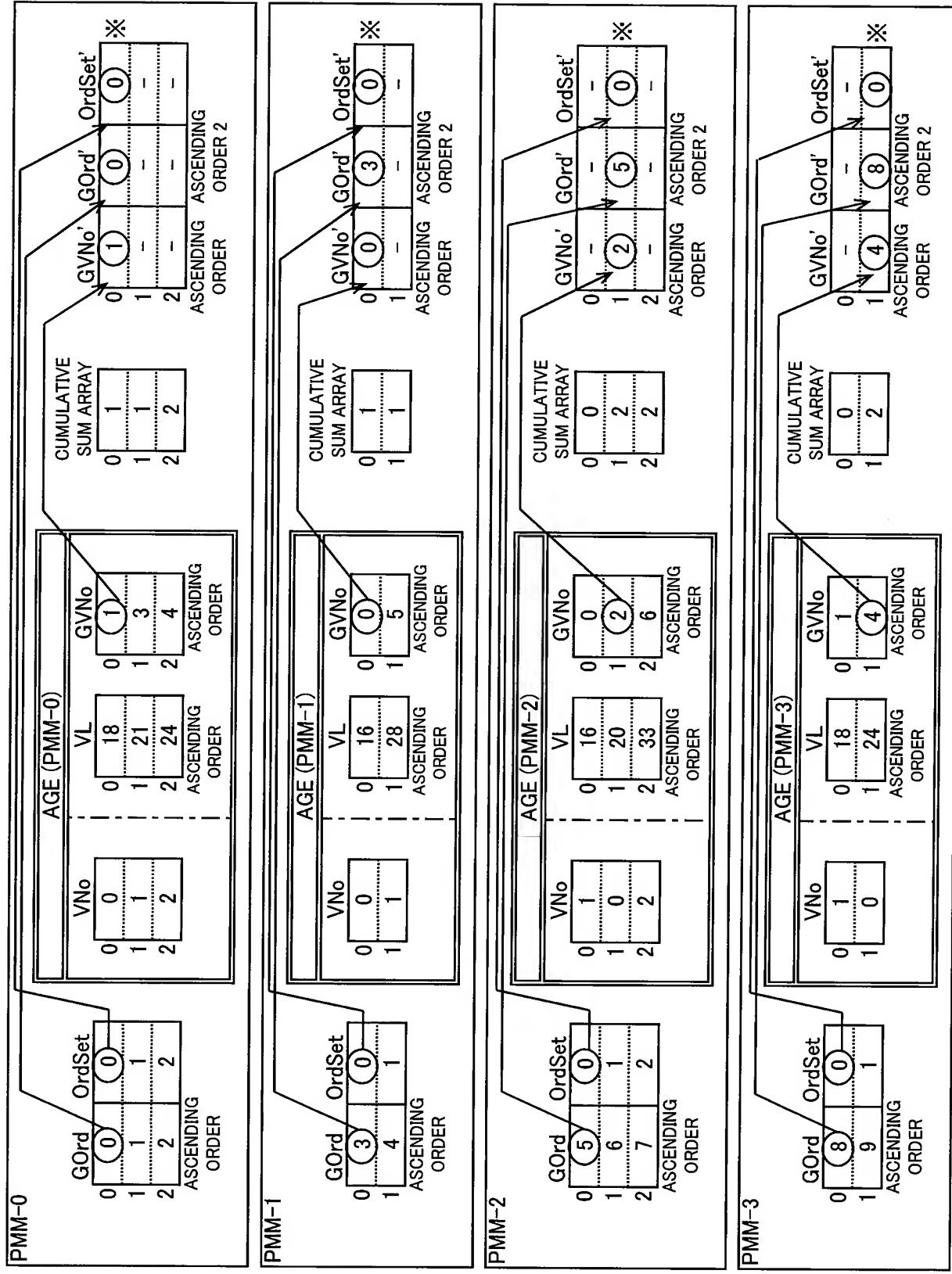


Fig.38

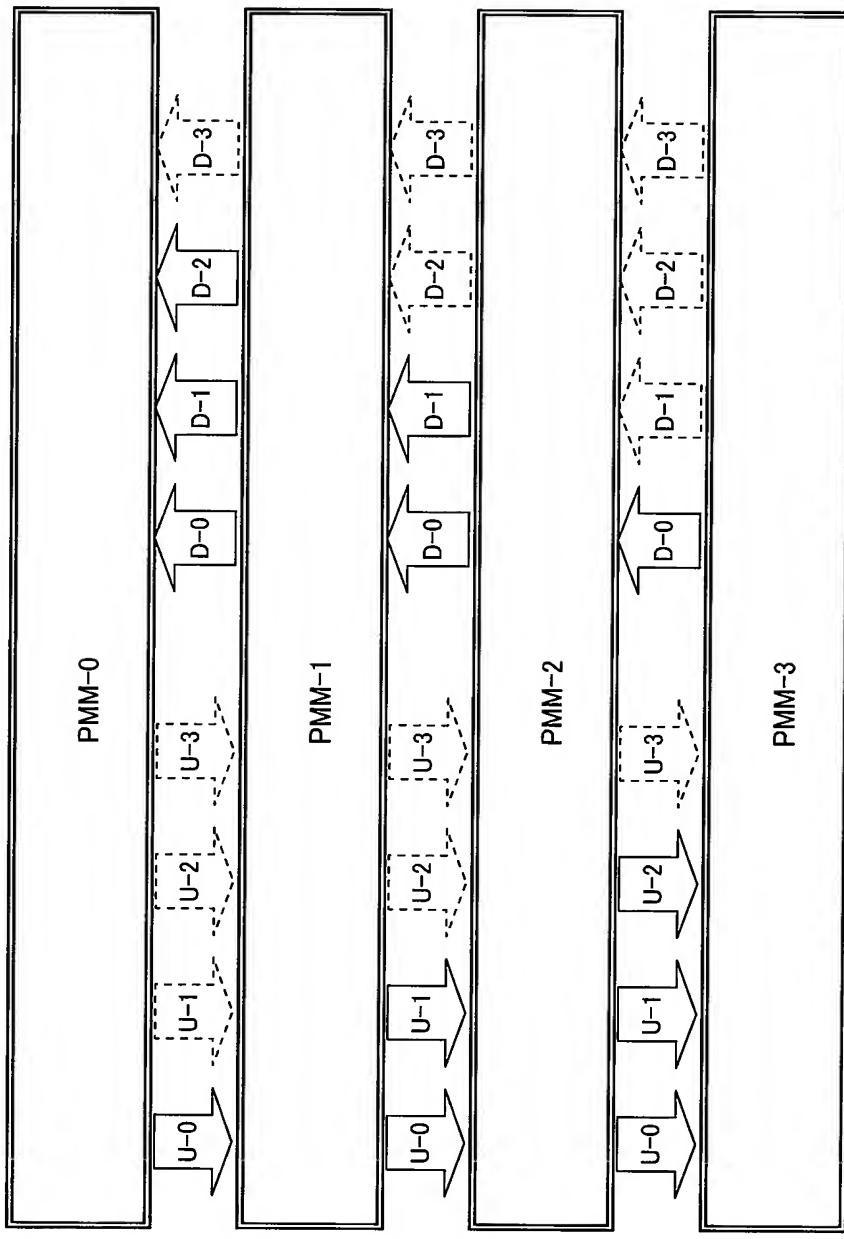


Fig.39

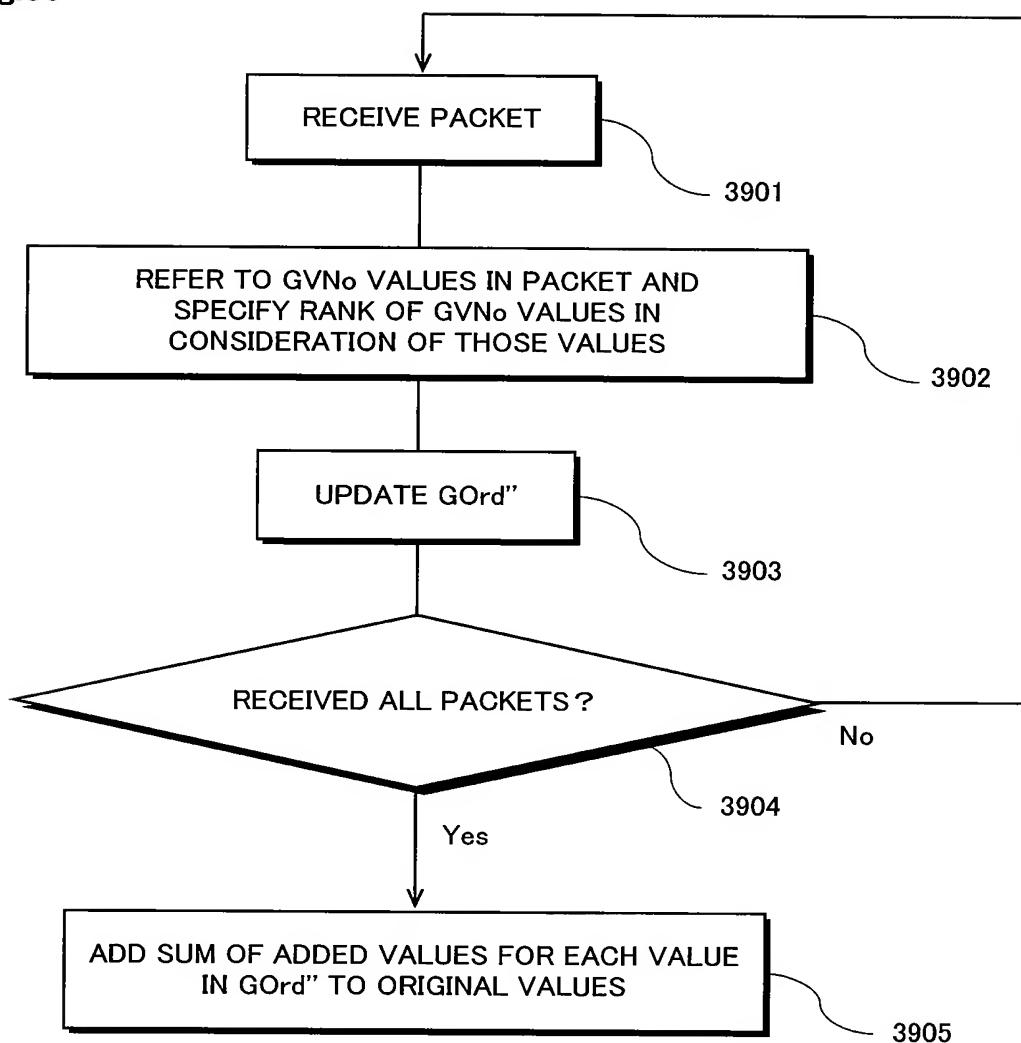


Fig.40

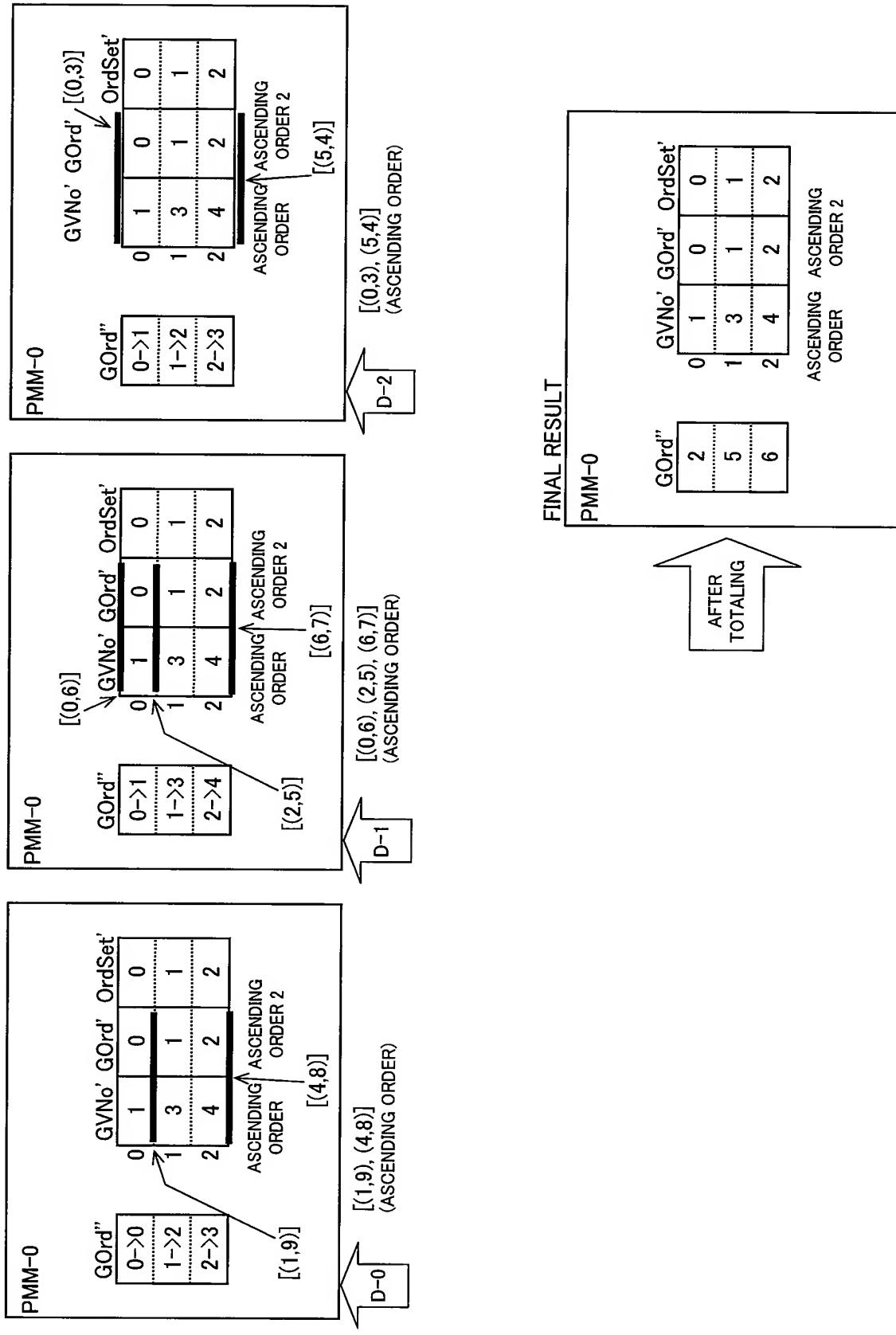


Fig.41

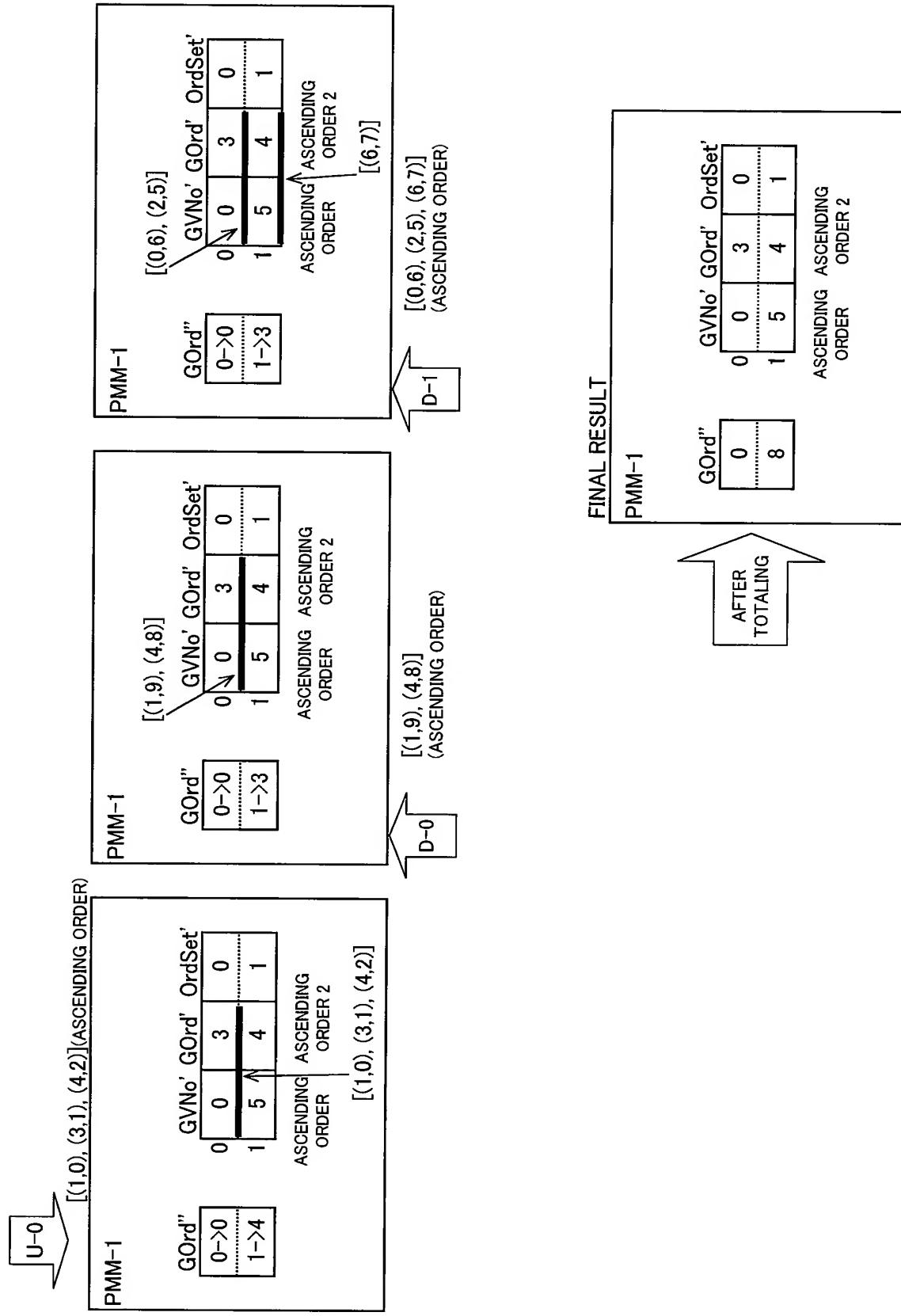


Fig.42

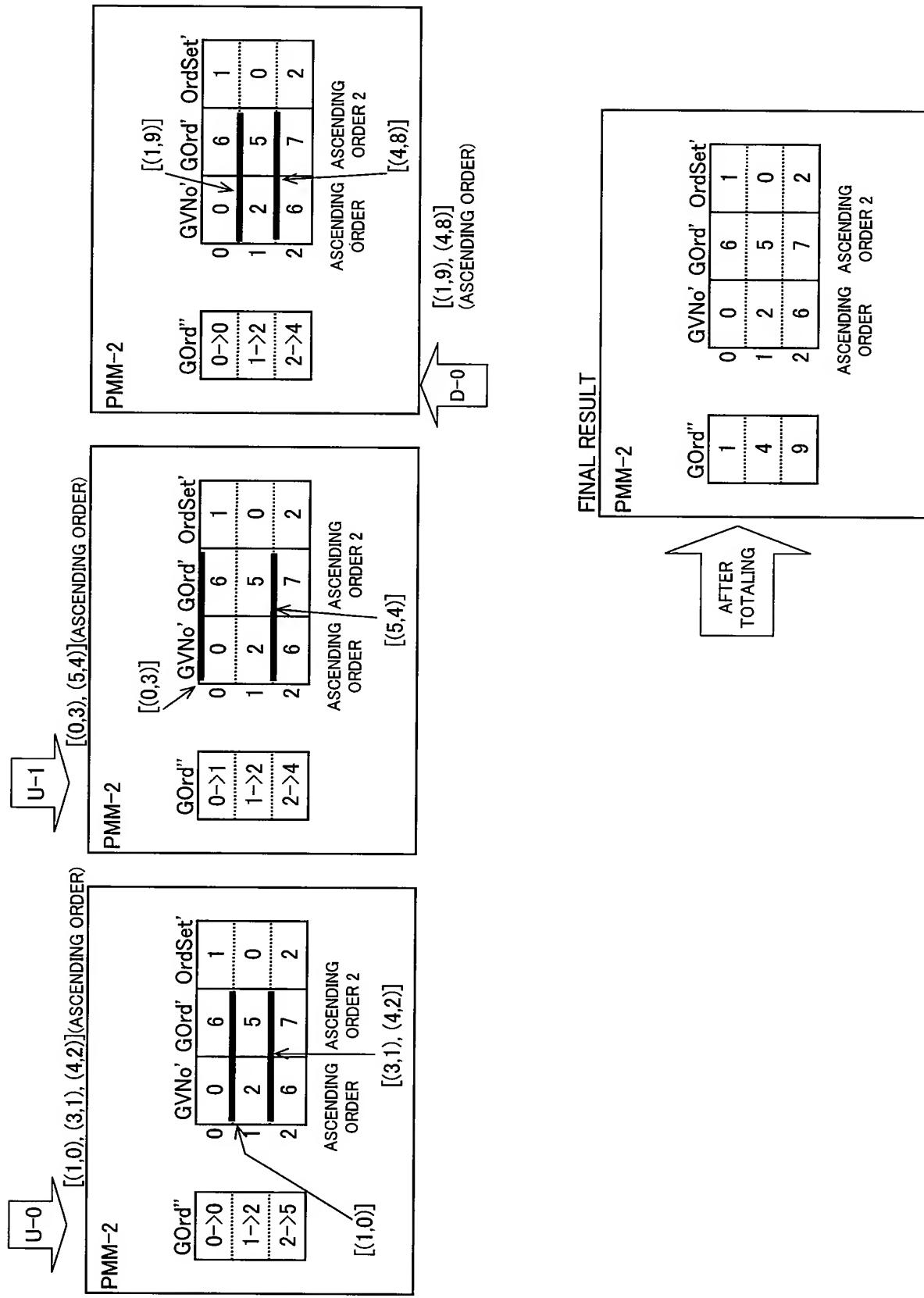


Fig.4.3

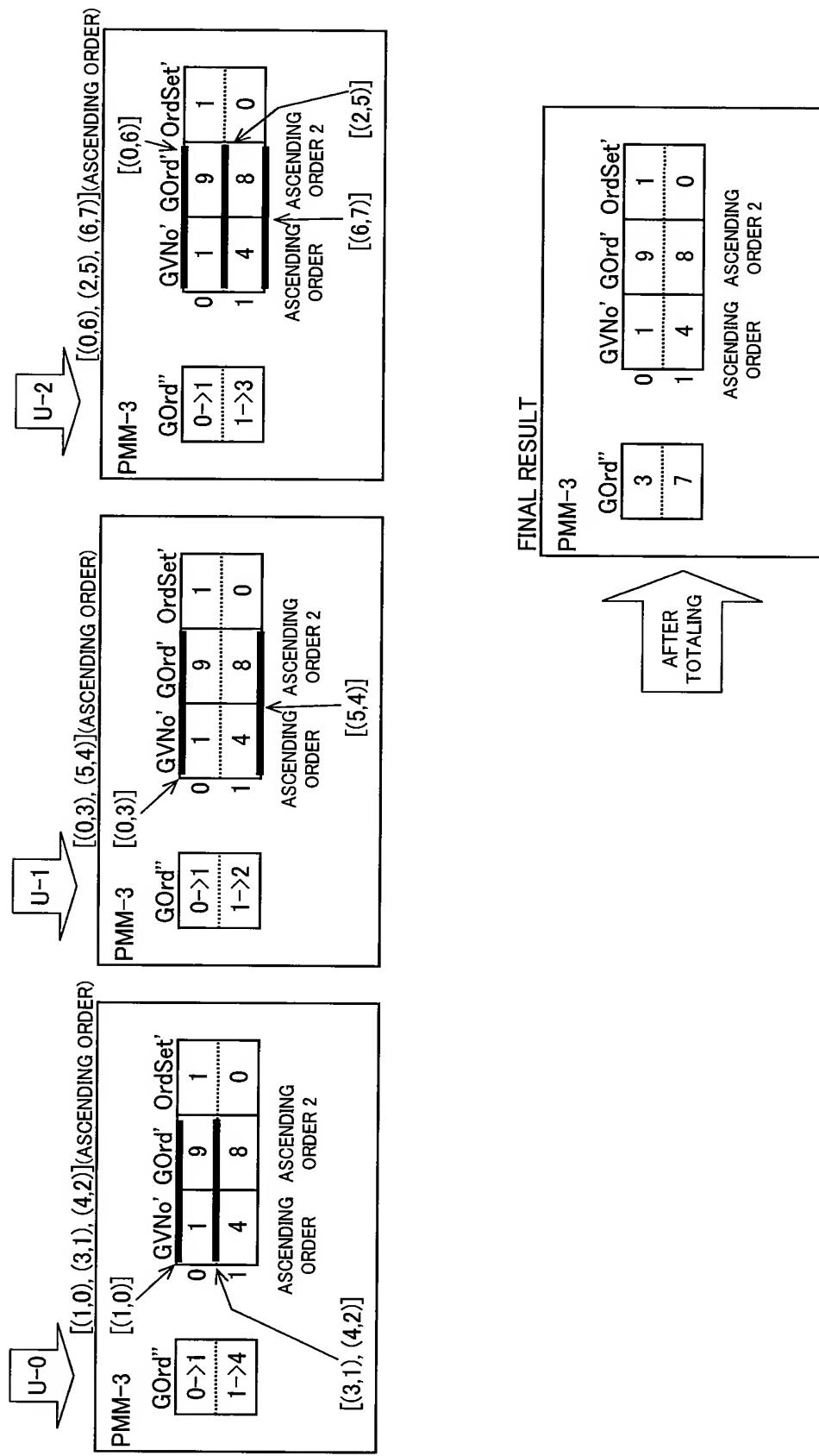


Fig.44

OFFSET= 0			SEX (PMM-0)			AGE (PMM-0)			HEIGHT (PMM-0)			WEIGHT (PMM-0)		
GOrd	OrdSet	VNo	VL	GVNo	VNo	VL	GVNo	VNo	VL	GVNo	VNo	VL	GVNo	
0	2	0	0	MALE	0	0	18	0	159	0	0	48	0	0
1	5	1	1	FEMALE	1	1	21	1	168	1	2	155	1	2
2	6	2	2	ASCENDING ORDER	2	2	24	2	172	2	4	64	2	3

OFFSET= 3			SEX (PMM-1)			AGE (PMM-1)			HEIGHT (PMM-1)			WEIGHT (PMM-1)		
GOrd	OrdSet	VNo	VL	GVNo	VNo	VL	GVNo	VNo	VL	GVNo	VNo	VL	GVNo	
0	0	0	0	MALE	0	0	16	0	172	0	4	48	0	0
1	8	1	1	FEMALE	1	1	28	1	181	1	7	78	1	5
				ASCENDING ORDER			ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

OFFSET= 5			SEX (PMM-2)			AGE (PMM-2)			HEIGHT (PMM-2)			WEIGHT (PMM-2)		
GOrd	OrdSet	VNo	VL	GVNo	VNo	VL	GVNo	VNo	VL	GVNo	VNo	VL	GVNo	
0	1	1	0	MALE	0	1	16	0	166	0	1	52	0	1
1	4	0	1	FEMALE	1	0	20	1	168	1	2	55	1	2
2	9	2	2	ASCENDING ORDER	2	2	33	2	174	2	5	65	2	4

OFFSET= 8			SEX (PMM-3)			AGE (PMM-3)			HEIGHT (PMM-3)			WEIGHT (PMM-3)		
GOrd	OrdSet	VNo	VL	GVNo	VNo	VL	GVNo	VNo	VL	GVNo	VNo	VL	GVNo	
0	3	1	0	MALE	0	1	18	0	170	0	3	55	0	2
1	7	0	1	FEMALE	1	0	24	1	177	1	6	64	1	3
				ASCENDING ORDER			ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER		ASCENDING ORDER	

Fig.45

	SEX	AGE	HEIGHT	WEIGHT
0	FEMALE	18	168	55
1	MALE	21	172	64
2	FEMALE	24	159	48
3	FEMALE	16	172	48
4	MALE	28	181	78
5	FEMALE	20	166	55
6	FEMALE	16	168	52
7	MALE	33	174	65
8	MALE	24	177	64
9	FEMALE	18	170	55

BEFORE SORTING

	SEX	AGE	HEIGHT	WEIGHT
0	3 FEMALE	16	172	48
1	6 FEMALE	16	168	52
2	0 FEMALE	18	168	55
3	9 FEMALE	18	170	55
4	5 FEMALE	20	166	55
5	1 MALE	21	172	64
6	2 FEMALE	24	159	48
7	8 MALE	24	177	64
8	4 MALE	28	181	78
9	7 MALE	33	174	65

AFTER SORTING

Fig.46

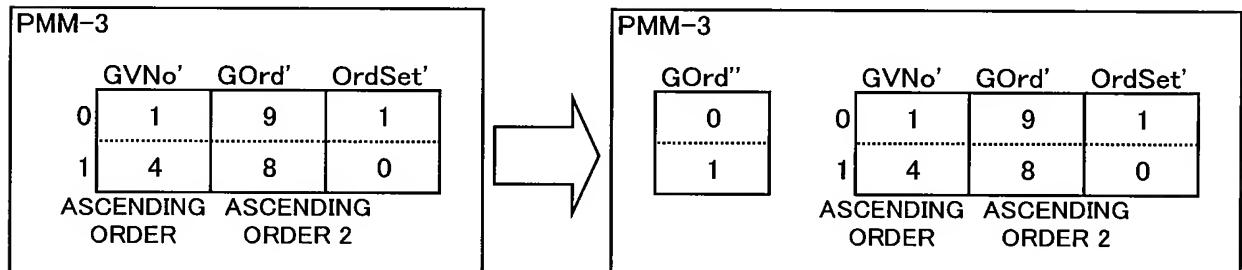
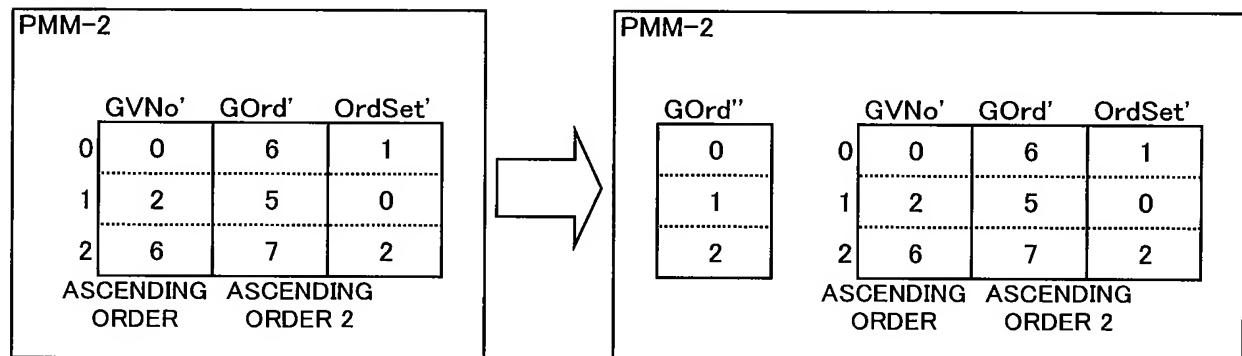
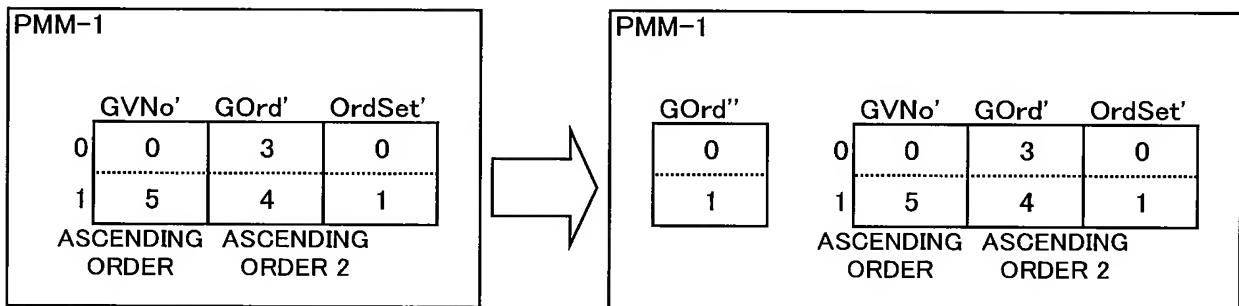
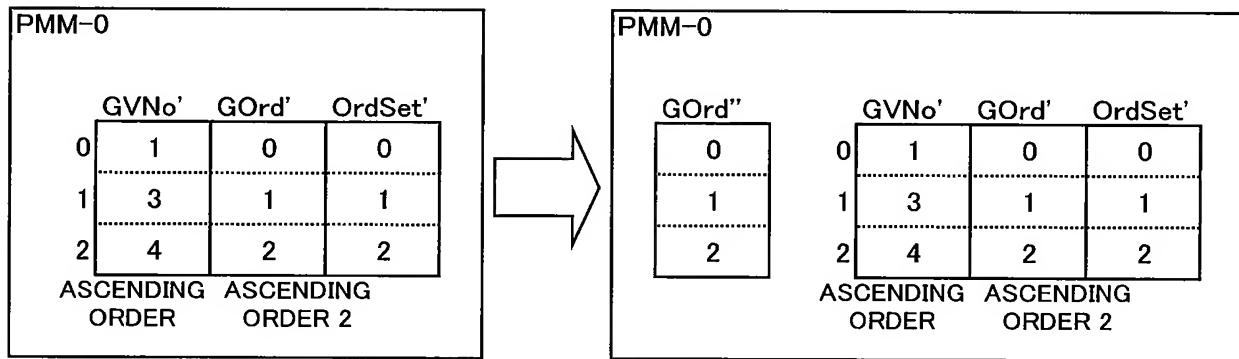


Fig.47

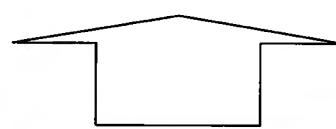
4710

OrdSet	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	18	168	55
1	MALE	21	172	64
2	FEMALE	24	159	48
3	FEMALE	16	172	48
4	MALE	28	181	78
5	FEMALE	20	166	55
6	FEMALE	16	168	52
7	MALE	33	174	65
8	MALE	24	177	64
9	FEMALE	18	170	55

OrdSet
0
1
2
3
4
5
6
7
8
9

4700

OrdSet
0
1
2
3
4
5
6
7
8
9



OrdSet	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)	WEIGHT(kg)
0	FEMALE	18	168	168	55
1	MALE	21	172	172	64
2	FEMALE	24	159	159	48
3	FEMALE	16	172	172	48
4	MALE	28	181	181	78
5	FEMALE	20	166	20	55
6	FEMALE	16	168	168	52
7	MALE	33	174	174	65
8	MALE	24	177	177	64
9	FEMALE	18	170	170	55

Fig.48

AFTER SORTING BY AGE (WITHOUT GOrd)

PMM-0				
OrdSet	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	18	168	55
1	MALE	21	172	64
2	FEMALE	24	159	48

4801

PMM-1				
OrdSet	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	16	172	48
1	MALE	28	181	78

4802

PMM-2				
OrdSet	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	FEMALE	20	166	55
1	FEMALE	16	168	52
2	MALE	33	174	65

4803

PMM-3				
OrdSet	SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
0	MALE	24	177	64
1	FEMALE	18	170	55

4804

Fig.49

AFTER SORTING BY AGE (WITH GOrd)

OFFSET= 0

PMM-0

GOrd	OrdSet
0	2
1	5
2	6

ASCENDING
ORDER

SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
FEMALE	18	168	55
MALE	21	172	64
FEMALE	24	159	48

OFFSET= 3

PMM-1

GOrd	OrdSet
0	0
1	8

ASCENDING
ORDER

SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
FEMALE	16	172	48
MALE	28	181	78

OFFSET= 5

PMM-2

GOrd	OrdSet
0	1
1	4
2	9

ASCENDING
ORDER

SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
FEMALE	20	166	55
FEMALE	16	168	52
MALE	33	174	65

OFFSET= 8

PMM-3

GOrd	OrdSet
0	3
1	7

ASCENDING
ORDER

SEX	AGE	HEIGHT(cm)	WEIGHT(kg)
MALE	24	177	64
FEMALE	18	170	55

Fig.50

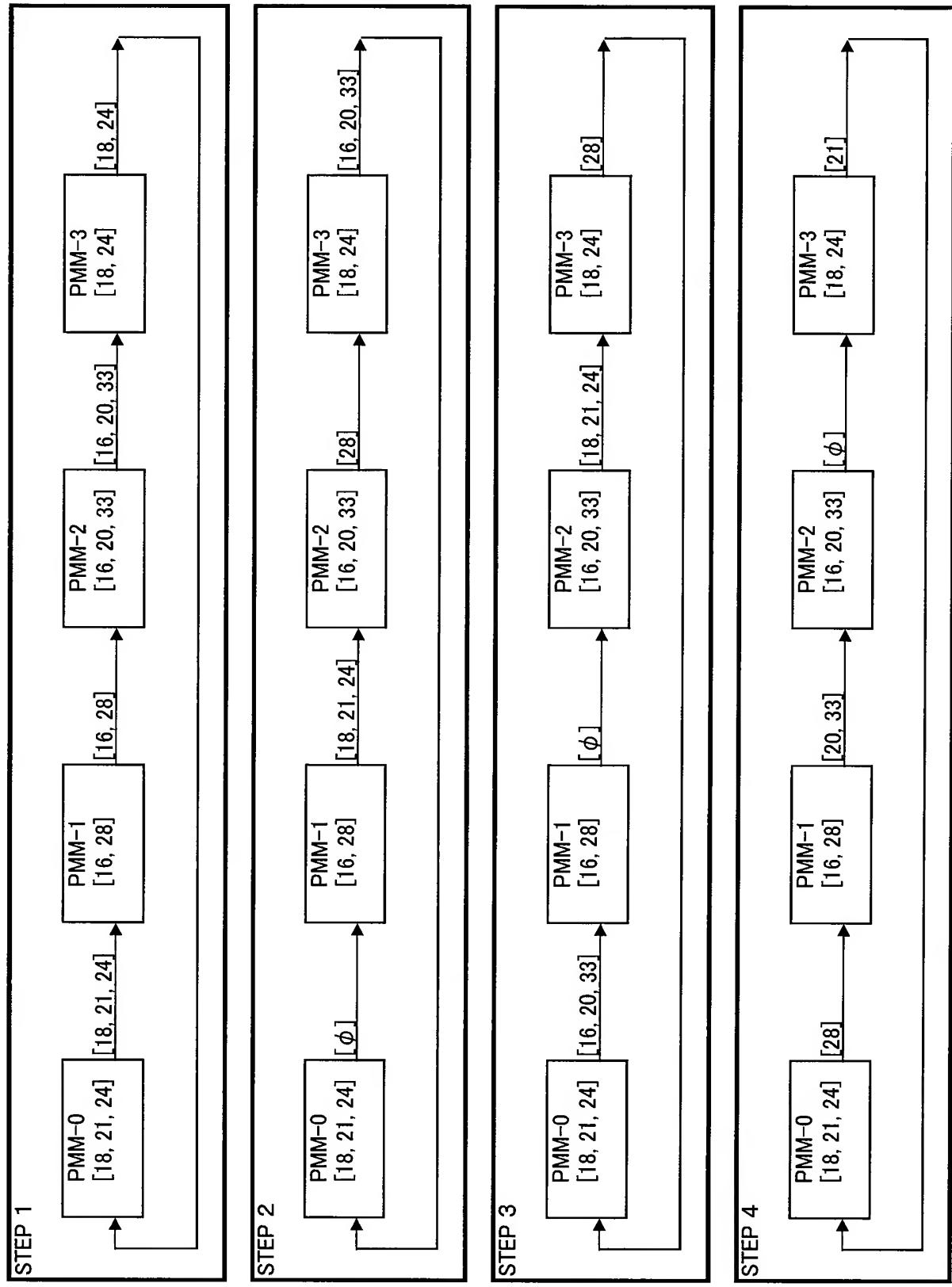


Fig. 51

PMM-0

PMM-1

[18, 21, 24](ASCENDING ORDER)	AGE (PMM-1)	ϕ (ASCENDING ORDER)	[16, 20, 33](ASCENDING ORDER)
VL	18, 21, 24	GVNo	AGE (PMM-1)
0 16 1 28	0 0 1 1	0 16 1 28	0 16 1 20 33

PMM-2

[16, 28](ASCENDING ORDER)		[18, 21, 24](ASCENDING ORDER)		[ϕ](ASCENDING ORDER)	
VL	AGE (PMM-2)	VL	AGE (PMM-2)	VL	AGE (PMM-2)
0	16	0	16	0	0
1	20	1	20	1	1
2	33	2	33	2	2

DMM-2

[16, 20, 33](ASCENDING ORDER) AGE (PMM-3)	[28](ASCENDING ORDER) AGE (PMM-3)	[18, 21, 24](ASCENDING ORDER) AGE (PMM-3)																																																						
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